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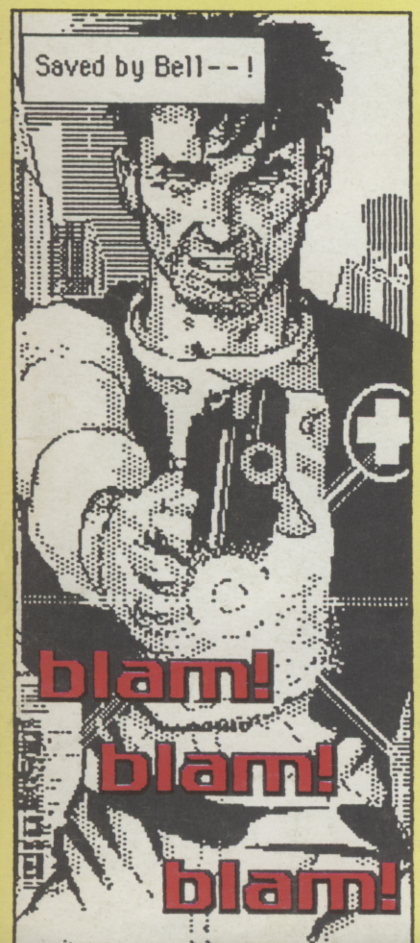
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WHO'S A W.I.M.P.*, THEN?

Sharp-eyed BIG K readers will probably spot the odd item in this month's ish to do with **the Apple Macintosh.** The odd review here, the odd glowing comment there. we make no secret: we love the beast. And to those who say, "That's all very well for these millionaire hacks, but I've only just made the last payment on my Spectrum!" . . . we make no apologies. The Mac may be pricey by Spectrum standards, but in its design it has set the standards for all future successful computers.

The proof of this was seen at this year's US Consumer Electronics Show, where Atari unveiled a whole range of cheap Macalikes, where the Mac philosophy has been blended with Atari's peerless games expertise. And at the reported prices, no-one can complain.

Just to set the seal on where (we believe) Things Are Going, we proudly present the first instalment of **SHATTER (p.76).** See it to believe it. When affordable computers can do this, can fourth-generation SuperGames be far behind? We don't think so, and we bet you don't either.

Enjoy,

**Windows, Icons, Mouse Program*

TONY TYLER

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Rapping with the stars. p.34.

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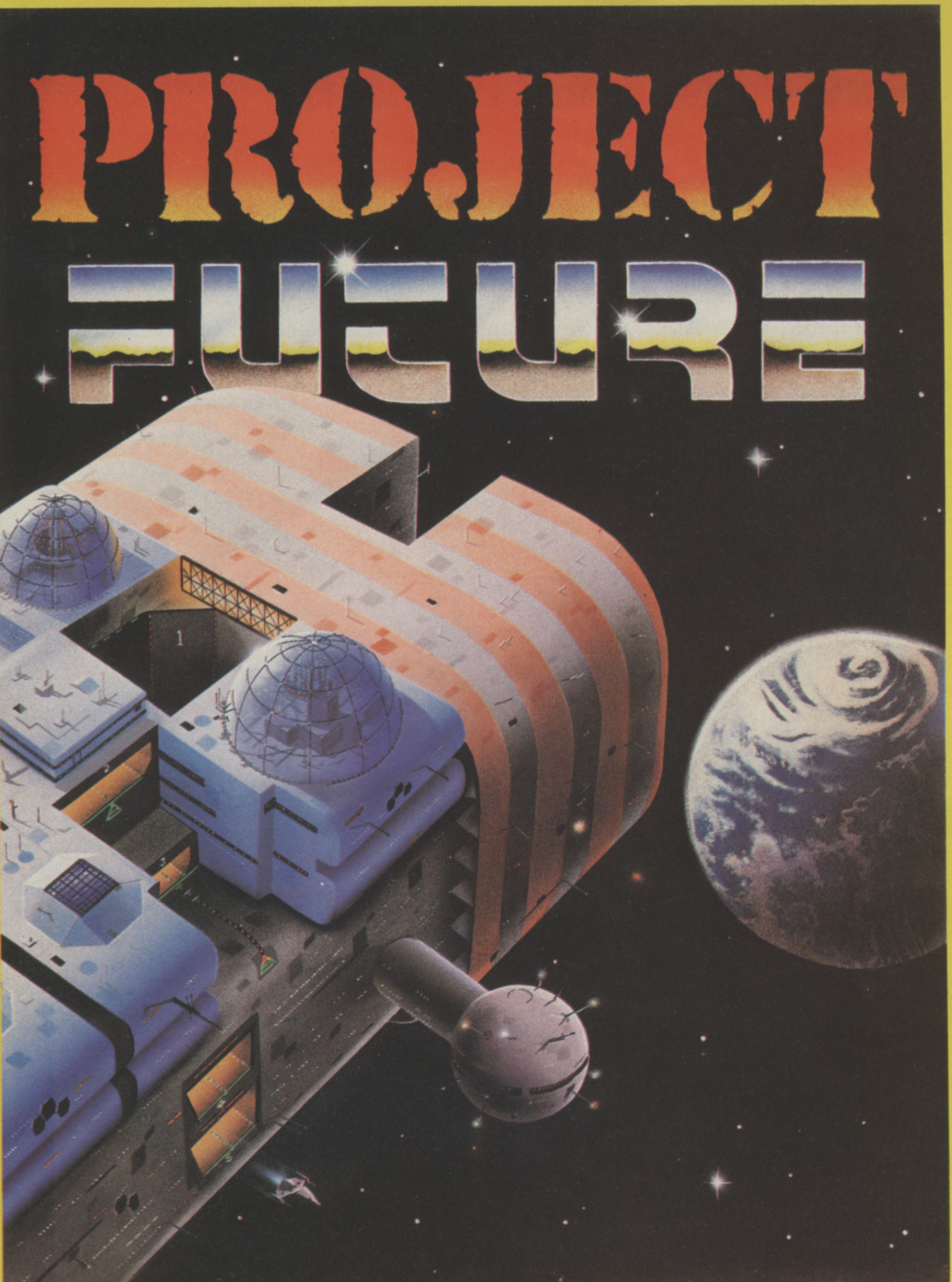
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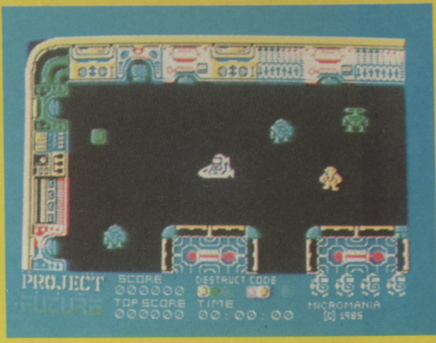
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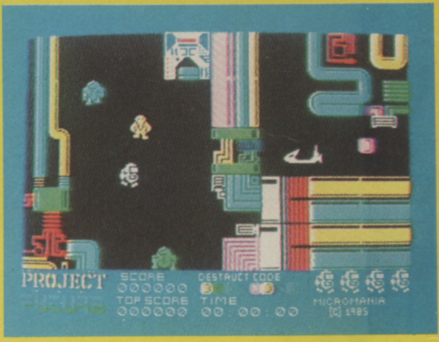
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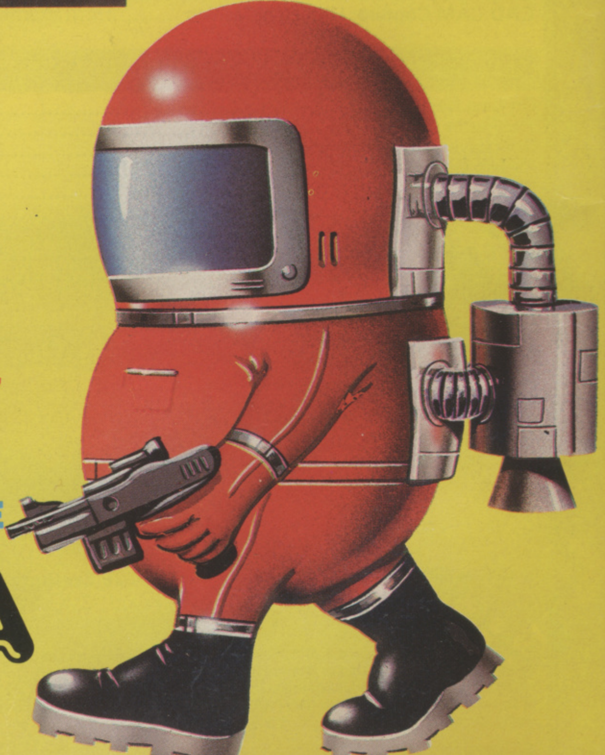
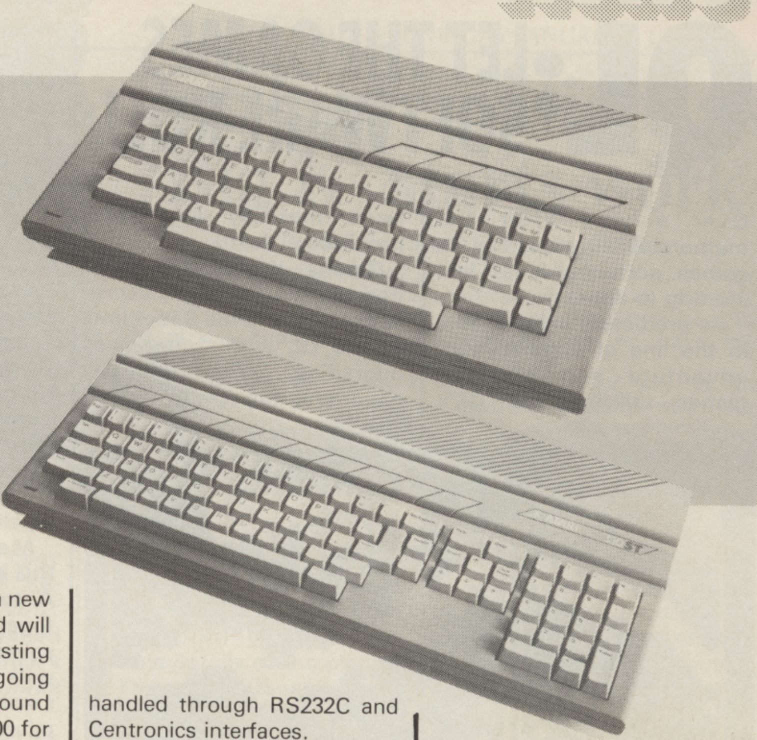


CES REPORT

WIMPS OF THE WORLD UNITE!



You have nothing to fear but Tramiel himself!

Dateline: Las Vegas. In the city of ten billion slot machines there was a new game in town — the Winter Consumer Electronics Show, better known this year as the What's-Tramiel-Been-Up-To Show. Jack Tramiel's reborn Atari Corporation came under public scrutiny for the first time.

In true show-biz fashion Tramiel kept the Atari stand chained, closed and heavily-guarded with the wraps on his new range of products until the show was officially opened. Then, with press hacks and dealers surging forward the wraps came off.

As reported in On-Line News last month, Atari has gone for distinct "families" of computers, with the 8-bit and 16-bit lines on show in Las Vegas. For those who have had their head in a bucket for the last few weeks, here's how it breaks down:

8-BIT: Basically two new machines. The 65XE, a 64K model that is essentially a revamped 800XL with some internal modifications and the 130XE with 128K of memory. Both machines will carry a new version of Atari DOS and will be compatible with all existing XL software. Prices as of going to press are said to be around £120 for the 65XE and £200 for the 130XE.

16-BIT: Dubbed the "Jacalikes" by some, the 130ST and 520ST are Macintosh clones with windows, mice (mouses?), icons, hi-res screens (in colour, 512 are claimed over three graphics modes) and 68000-based — but at a fraction of the Mac price. The 130ST is a non-expandable 128K machine selling for about £499 while the 520ST packs 512K with expansion capabilities for about £699 (around £1,000 cheaper than the basic 128K Mac). Each model will have a 196K built-in ROM containing GEM and CP/M-68K, with the choice of BASIC or LOGO languages built in. Operating system will be the new TOS (Tramiel Operating System). External disc drives will feature the 3.5 inch Sony-type discs. Communications will be handled through RS232C and Centronics interfaces.

All the new Ataris are due to appear in this country sometime this spring — it says here.

If Tramiel can deliver the new goods on time and at the prices quoted then he really has done something special. However, according to BIG K's U.S. correspondent Mike Gold, not everyone is euphoric about Tramiel's new toys. The American software houses are said to be "less than enthusiastic" with the new line, although the XE models are acceptable due to their XL compatibility. Tramiel has a lot to prove in their eyes as the Atari name still bears the stigma of failure in the U.S. market. The Commodore 64 has now firmly entrenched itself as the chief games machine over there, a position it will take some shifting from.

Meanwhile, Atarisoft has been transformed into a marketing operation for printers, disc drives and monitors for other computer systems. Expect to see the first ones later this year.

MEANWHILE, AT COMMODORE . . .

Commodore had a hard time grabbing some of the spotlight from Atari in Las Vegas but their stand was also packed. The C64 was alive, well and destined to remain the flagship of their range for sometime to come. Their new offering was the C128, a (surprise, surprise) 128K micro, carrying the slogan "Bad News for IBM and Apple".

Good news, however, for the punter. The C128 is compatible with all Commodore's peripherals and software. Expansion up to 512K is possible and new 500K fast disc drive is on the way.

A GOGGLE WITH G-A-R-G-O-Y-L-E

Gargoyle Games have come up with a follow-up of their widely acclaimed *Tir Na Nog.* Subtitled *Cuchulainn — The Early Years* the prequel will zoom in on the early life of the hero. *Cuchulainn* will feature fully interactive characters (al la *Valhalla*) as well as large-scale cartoon graphics, and will be seen along with the first cuckoo of Spring, around May.

With the last cuckoo (around October) we will also see Gargoyle's *The Animated Snark.*

Based on Lewis Caroll's "The Hunting of the Snark", *Snark* is a pseudo-intelligent game, featuring an animated screen-size head, and the prophesies of Nostre Damus. Gargoyle designer Greg Follis describes it as "a whimsical adventure using lateral thinking." Sound promisingly surreal.

QL: LET THE GAMES SOFTWARE ROLL

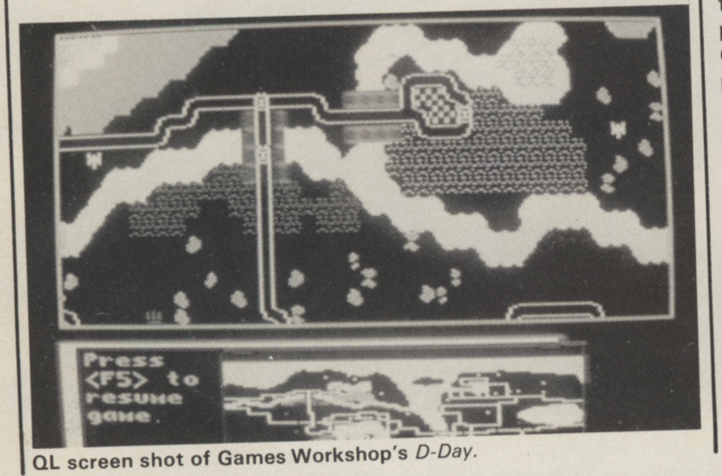
Over a year after the memorable launch of the QL games software is at last starting to appear.

As predicted, most of it is in the line of sophisticated adventure and strategy games utilising the QL's large memory and fast processor.

Games Workshop have converted their *D-Day* wargame from the Spectrum to the QL with "..massive upgrading". *D-Day* features a panoramic full-scrolling map window with overall map call-up. There are four separate scenarios and a playing area of 127×52 units. The QL *D-Day* plus 40-page manual is priced at £24.95.

Talent Computer Systems of Glasgow have released *The Lost Kingdom of Zkul* for the QL. Described as an incredibly complex text adventure, it retails at £19.95. Talent has also converted *West,* a wild west adventure, from the C64 to the QL. A company already very familiar with the 68000 processor Talent have other QL projects already in the pipeline.

Meanwhile, frequent BIG K games programmer Antony Trenker has put together a QL games pack called *Pack of Six* which he will supply to anyone sending him a blank microdrive cartridge and a cheque/PO for £4.50. Full details from Antony at Octosoft, Maze Lodge, La Rue Maze, St. Martins, Guernsey, C.I. (no letters to the BIG K office, please).

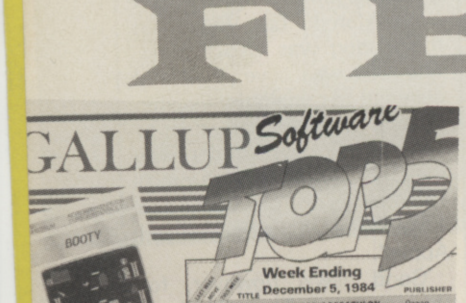


QL screen shot of Games Workshop's *D-Day*.

VIVE L'ORIC!

The Oric Atmos has never quite taken off in the U.K. One reason is the limited software base, and the low quality of what software there is. In France it's a different story, and they've gone ape over the little black and red machine — it's more popular than the Spectrum. The French software base is massive, and so Tansoft have concluded a distribution deal with several French software houses. Mais certainement nous envisage une problème en translating des instructions. They're usually bad enough in English without introducing Franglais. Good news for software-starved Oric owners though.

The FERRET



"ONE OF this month's biggest climbers is *International Soccer* from Commodore, up from number 50 to 30. Down three places from 26 to 29 is *Jetpac* from Ultimate available for the Spectrum, Vic20 and COMMODORE 64."

The snippet above is from the Gallup (those lovely chart people) software chart. In these times of ever-increasing confusion it's instructive to see one of the UK's top polling organisations (or so they claim) getting their facts wrong.

Jetpac has not been written by Ultimate for the 64. I did review an unlicensed clone in the December issue but it isn't on sale in the shops. How did Gallup get it in their chart? Rick Smith of Gallup — "I'll just check the printout . . . It's not our mistake. We only have it down for the BBC, Spectrum and VIC 20".

The plot thickens . . .

COULD IT be that the Argus takever is finally having an effect on Quicksilva? Mark Eyles (one of the golden oldies) has been made redundant, but did get a generous pay-off. Who's next?

MY HUSBAND AND I . . .

AFTER MY review of* Henry's House *in the December issue, a letter was written from a certain lady-in-waiting saying SCHHH . . . You-know-who was pleased to see the aforementioned game. Who knows — perhaps little Henry's fingers are tapping away at a 64 at this very moment? And then again, perhaps not . . .

THE LATE arrival of *The Great Space Race* was not just as John Peel, Legend software supremo, would have us believe, a ploy to capture the Christmas market. I understand that some (all?) of his programmers were so fed up with the way they were treated that they left Legend to look for other employment . . .

ALL YOU fans of *Decathlon*-type games will be glad to know that a follow up to the successful *Summer Games* is being developed by CBS and, surprise, there will also be a *Winter Games* to tide you over during those cold winter months.

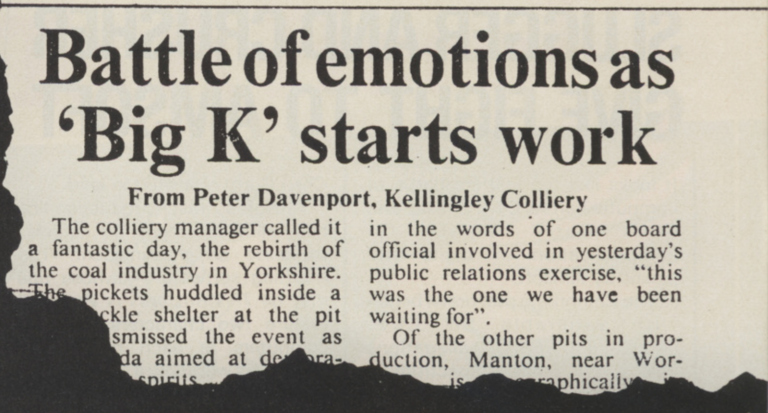
AFTER THE wild success of US Gold in the UK, I hear plans are afoot to start up a UK Gold operation in the US! It's about time we taught those dam' Yankees what it's all about!

GOSSIP. . . GOSSIP. . . GOSSIP. . .

THOSE FASCINATING SQUELCHY BITS

The entire BIG K office being entirely staffed by hypochondriacs we are taking a deep interest in the latest release from Martech. *The Living Body* is an educational package intended to familiarise users with the inner workings of their own bodies. It's a follow-up to Channel 4's popular series of the same name, and claims as a consultant no less than Christiaan Barnard the heart removal man.

Each of the six programs in the package is cutely titled. Parts 1 and 2 are "Getting to know your insides", and "Building a blood system". But our favourite is part 4 — "So you think you can breathe". Well, um, you know, it seemed a reasonable conclusion to jump to at the time. . .



THE TIMES WEDNESDAY JANUARY 9 1985

Battle of emotions as 'Big K' starts work

From Peter Davenport, Kellingley Colliery

The colliery manager called it a fantastic day, the rebirth of the coal industry in Yorkshire. The pickets huddled inside a ckle shelter at the pit smissed the event as da aimed at de ora- spirits in the words of one board official involved in yesterday's public relations exercise, "this was the one we have been waiting for".

Of the other pits in production, Manton, near Wor- is raphically

OBSCURED BY CLOUDS

Digital Productions, the company that computer-animated *Tron* and *The Last Starfighter*, have not been resting on their laurels. They've been very busy providing animated sequences of Jupiter for *2010: Odyssey 2*, the long-awaited sequel to Stanley Kubrick's classic *2001: A Space Odyssey*.

The animation started its life as actual Voyager probe stills, which were airbrushed to remove all blemishes and joins. In some cases, the Jovian surface was obscured by one of the four large moons, or is shadow, and this had to be painted in, extrapolating from the visible details of the planet.

The next stage was to digitise the stills and superimpose a dynamic model of wind-currents in the Jovian upper atmosphere. With the help of this model, the clouds could be made to form vortices or swirl on command.

All this processing, run on a Cray MP-X, produced a massive 130 seconds of film. No matter, for the object of the exercise was to create an animated background for the action. This can be used repeatedly in different shots, rather like the backgrounds in Tom and Jerry. Nice to know that some Hollywood traditions live on.

Tony Takoushi

EVER HEAR tell of the annual Quick-Byte Awards, chums? No, nothing to do with fast food — these of which I speak are the much-uncoveted Dork-of-the-Year prizes dished out at an annual dinner instituted by Quicksilva and Bug-Byte.

Each award is of considerable merit, as you can see, and depicts the Blessed Clive himself. Imagine my shock when attending the sumptuous award banquet, surrounded on all sides by the illustrious and bankrupt, when a familiar shambling figure was called to the podium. Studying the man's brutish, Neanderthaloid gait, I recognised a certain Tony Tyler, so-called editor of a computer magazine of sorts.

The man's crime? All I can say is that his 'Clive' was seen to be inscribed 'We all need the knack of editorial responsibility'. What can they mean?

QUOTES OF THE YEAR

"I can't stand the Spectrum" — MATTHEW SMITH

"May your armpits be infested with the fleas of a thousand camels" — JEFF MINTER

"The Sun? It's cornflake journalism" — NICK ORLANDO

"Automata UK are too good for this industry" — CHRISTIAN PENFOLD

"We were wallies over the QL" — A SINCLAIR SPOKESMAN

"Take that!" — SIR CLIVE SINCLAIR

"Ouch!" — CHRIS CURRY

". . . Tonight you sleep with the fishes!" — JACK TRAMIEL

". . . Sound via the TV, just like the Sinclair Spectrum . . ." — TOSHIBA MSX ADVERT

OLD CHUMS corner . . . well, come on, what's the point of having your own column if you can't get in the odd plug for your mates? So congratulations to my old friend **Hanna Samara** for getting her game *Jinn Genie* into the top ten. Very good it is too. By the way, Hanna, I'm still waiting for the cheque . . .

I'VE BEEN wondering for some time what the ex-Imagine people were being paid for converting *Bandersnatch* to the QL. I now hear they are said to be receiving £15,000 a month, to be shared between seven of them, but payment is strictly on a results basis. Apparently David Lawson has got a new Aston Martin to drive around in . . . Here we go again!

In a local Liverpool paper there's an ad calling urgently for 16-bit programmers. All replies to be made to a PO Box (I wonder who . . .)

GOSSIP. . . GOSSIP. . . GOSSIP. . .

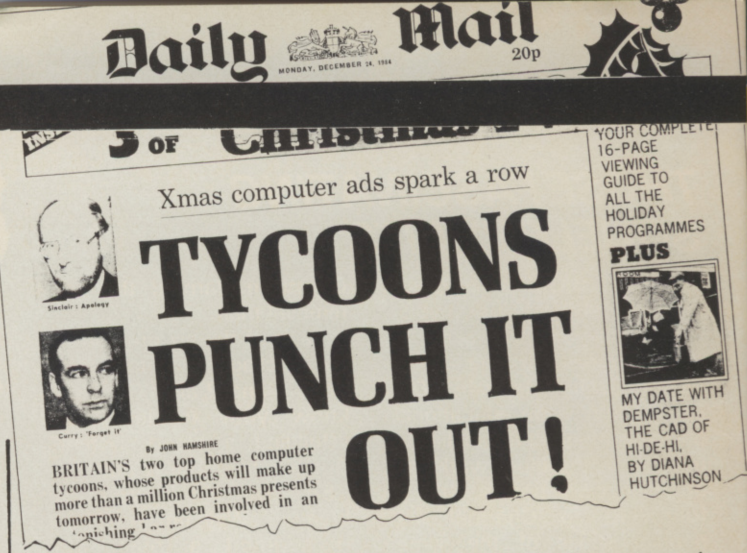
SLUGGER AND CRUSHER GIVE FIGHT TO AMSOFT

It looks like the real life battle of computer barons Clive Sinclair and Chris Curry is set for immortalisation in digits and plastic by Amsoft.

The Cambridge pub brawl began with venerable Sir Clive complaining about allegations against the Sinclair Spectrum in Acorn's Christmas ads. Clive lent his argument weight and emphasis by slapping Chris Curry (Acorn high hat) about the face and head. Chris Curry retaliated in kind.

Amsoft's fast production-line has allowed them to quickly capitalise on the incident. The resulting software — whose title may be *This Business Is War,* will feature two characters throwing computers at each other. The characters will show a "remarkable similarity" to Messrs Sinclair and Curry (one is bald and bespectacled, and one isn't).

"We have to be careful about what we depict" said an Amsoft spokesperson, when pushed for further derisory detail of this latest coup in the hard/software wars, "but suffice it to say that if the Sir Clive lookalike should be vanquished — he will be carted off to hospital in something that has an uncanny resemblance to a three-wheel electric car."



Daily Mail

MONDAY, DECEMBER 24, 1984

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Xmas computer ads spark a row

TYCOONS PUNCH IT OUT!

Sinclair : Apology

Curry : 'Forget it'

By JOHN HAMSHIRE

BRITAIN'S two top home computer tycoons, whose products will make up more than a million Christmas presents tomorrow, have been involved in an astonishing

COMPUTER PRESS AFRICA APPEAL

We're not going to tell you about the dreadful situation in Africa — you know all about that. What we are going to do is tell you what you, BIG K readers, can do to help.

That's not to say you haven't helped already. Very many of you will have, in one form or another. Perhaps you bought the Band Aid record. Perhaps you simply gave money. Whatever you've given, we know it's deeply appreciated. but there remains a great deal more to be done.'

Which is where computer people come in.

If your setup is anything like ours (and we have reason to believe it is), then you've probably got the odd bit of surplus-to-requirements software kicking about somewhere. Maybe more than the odd bit. And though Yesterday's Hits are about as much use to you as a sixth toe, you may be interested to know that they can still be turned into hard cash.

So this is what's happening.

In full cooperation with other computer magazines — including *Computer & Video Games* and *Home Computer Trade Weekly* — Big K is asking ypu to send in your old software. At a date yet to be fixed (but probably towards the end of April) a major auction will be held somewhere in London with celebrities in attendance. The money raised will go towards famine and draught relief in Africa.

Every penny of the money raised by the auction of your software will find its way to Africa, to help those who need helping (and there are hundreds more every day. To make sure that the well-known rip-offs don't take place en route (whisky for the Dergue and so on), we're in full consultation with Oxfam, who will advise us at every step of the way. Needless to say, for the honour of the computing community, we would like to raise as much money as we can.

DON'T SEND YOUR SOFTWARE TO BIG K!

We repeat, don't send it here. As you will find out elsewhere in this issue of BIG K, this issue is (sob) the last issue! However, we still want to help as much as we can. Hence this message.

Send your software either to *Home Computer Trade Weekly*, or to *C & VG*. Be sure to mark the envelopes, jiffybags, packing cases and refrigerated containers with the words AFRICA APPEAL (or the contents might get reviewed — you know how it is).

THANK YOU FOR YOUR ATTENTION.

BE GENEROUS.

DRAGON AND TANDY OWNERS — COME ON DOWN!

Far from being discouraged by the ups and down of the fortunes of their computer, Dragon owners, and Tandy Colour folk, who share the same 6809 processor, are proving to be the most loyal computerphiles around. Over 7,000 of them attended the first *6809 Colour Show* held in London last year.

A similar display of solidarity is possible at the *Second 6809 Colour Show* to be held at the Royal Horticultural Halls, Westminster, London on the weekend of March 30th and 31st — and BIG K can get you in cheap! Just clip the voucher below, hand it to the guy on the door, tell him BIG K sent you and 50p will be knocked off the admission fee of £2.50 for adults and £1.50 for children. The voucher is valid only for use on the door.

The organisers promise a good time for all with lots of stuff for the Dragon and Tandy machines on sale including new products. User groups will be on hand to offer advice and there will be competitions and prizes to keep the whole family happy.

The Second 6809 COLOUR SHOW

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Home Education Software

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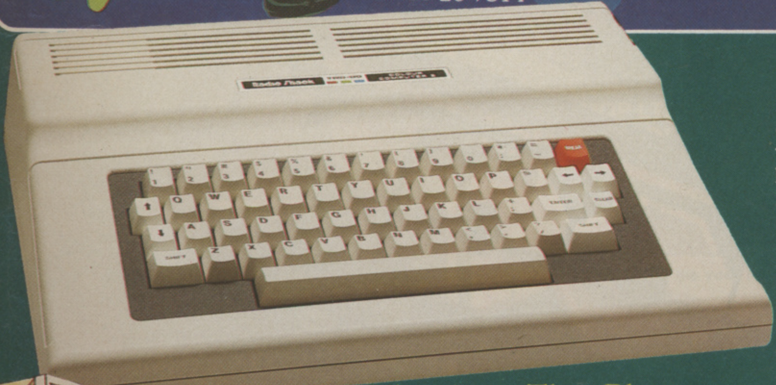
Packs 1-6. 26-7369/70/1/2/3/4 .... **£6.95 Each**



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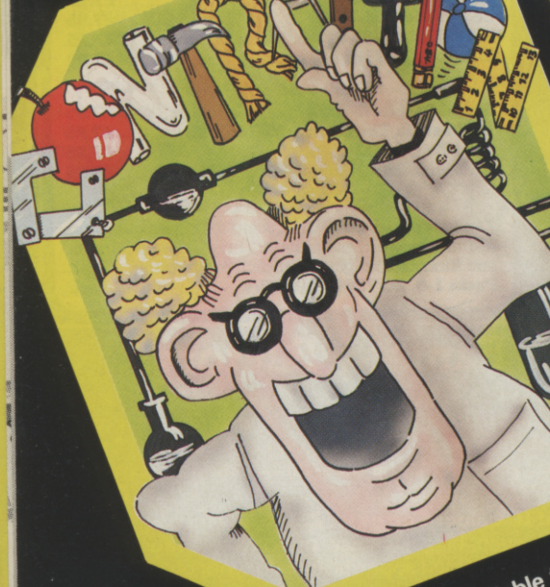

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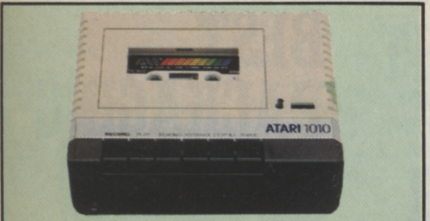

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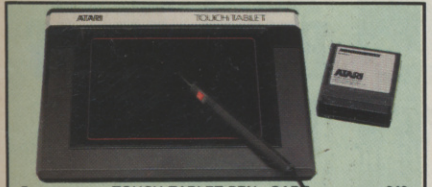

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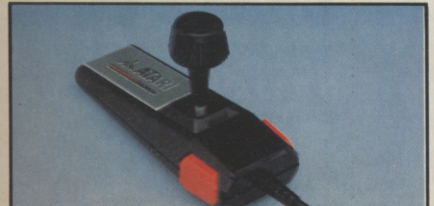

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READERS RESULTS

GAME OF THE YEAR

1. JET-SET WILLY (Software Projects)
2. Daley Thompson's Decathlon (Ocean)
3. Sabre Wulf (Ultimate)
4. Elite (Acornsoft)
5. Beach Head (U.S. Gold)

Top Landing
collected 000 Time 7

PROG-RAMMER OF THE YEAR

1. MATTHEW SMITH
2. Tony Crowther
3. Jef Minter

SOFTWARE COMPANY OF THE YEAR

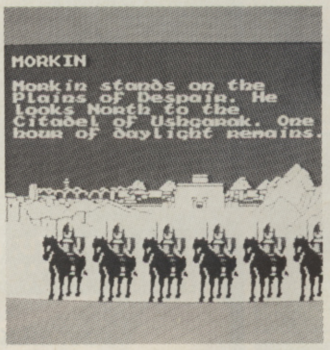
1. ULTIMATE
2. Software Projects
3. Beyond
4. Ocean
5. Melbourne House

ARCADE GAME OF THE YEAR

1. ZAXXON
2. Pole Postion
3. Firefox

ADVENTURE GAME OF THE YEAR

1. THE LORDS OF MIDNIGHT (Beyond)
2. The Hobbit (Melbourne House)
3. Sherlock (Melbourne House)
4. Urban Upstart (Richard Shepherd Software)
5. Tir Na Nog (Gargoyle Games)


MORKIN

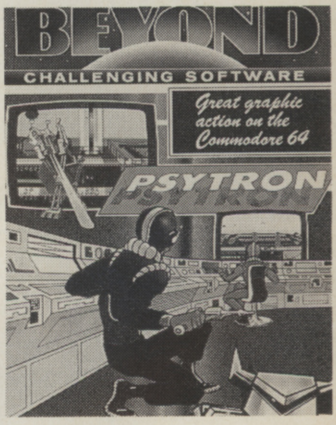
Morkin stands on the Plains of Despair. He looks North to the Citadel of Ushgarak. One hour of daylight remains.

SIMULATION OF THE YEAR

1. FIGHTER PILOT (Digital Intergration)
2. Solo Flight (U.S. Gold)
3. Chequered Flag (Psion/Sinclair)

BEST PACKAGING OF THE YEAR

1. PSYTRON (Beyond)
2. Daley Thompson's Decathlon (Ocean)
3. The Lords of Midnight (Beyond)
4. Underwurlde (Ultimate)
5. Elite (Acornsoft)


BEYOND
CHALLENGING SOFTWARE
Great graphic action on the Commodore 64
PSYTRON

BEST AD OF THE YEAR

1. GHOSTBUSTERS
2. Sabre Wulf
3. Jet-Set Willy

CRASH OF THE YEAR

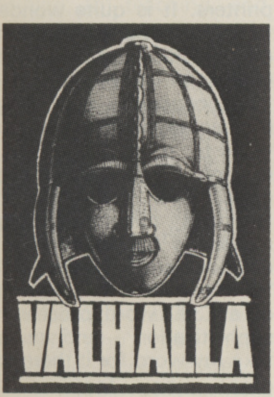
1. IMAGINE SOFTWARE
2. Sinclair QL
3. MSX

RS POLL

1984

LAME GAME OF THE YEAR

1. VALHALLA (Legend)
2. Beach Head (U.S. Gold)
3. Micro Olympics (Database)



NAFFWARE OF THE YEAR

1. RAT JOYSTICK (Cheetah)
2. ZX Microdrives (Sinclair)
3. ZX Printer (Sinclair)

GOOD IDEA BUT . . . (OF THE YEAR)

1. SINCLAIR QL
2. Sinclair Spectrum
3. Coleco Adam

HYPE OF THE YEAR

1. SINCLAIR QL
2. Megagames
3. MSX

BROKEN PROMISE OF THE YEAR

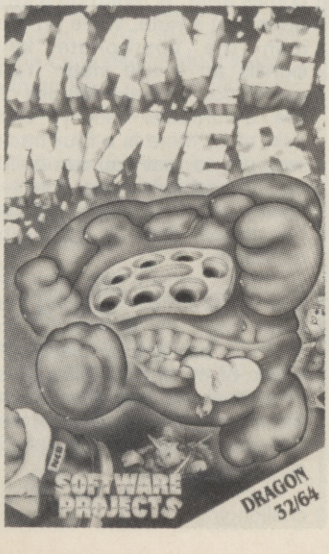
1. QLs BY MARCH
2. Enterprise by 1984
3. Megagames at all!

RIP-OFF OF THE YEAR

1. VALHALLA
2. Commodore C16
3. Spectrum+

MOST PLUNDERED CONCEPT OF THE YEAR

1. MANIC MINER
2. Olympics
3. Pac-Man clones



WORST PACKAGING OF THE YEAR

1. JET-SET WILLY
2. All Imagine games
3. Valhalla

WORST AD OF THE YEAR

1. COMMODORE 64
2. Atari
3. Samurai Software

Merrie Melodies

The Age of the Music Processor has finally dawned. MusiCalc, MusicWorks . . . and now, from a new British company with a hot pedigree, comes The Music System — and it's the best of the lot, says TONY TYLER.

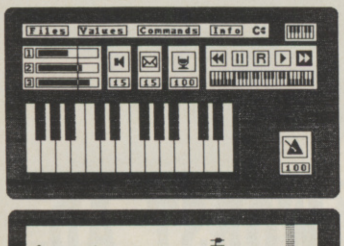
All this and not a Tam in sight! Taking a break from software development, the Island Logic team conceal their rage at the breakdown of the coffee-grinding machine.

THE MUSIC SYSTEM is the long-awaited first product by Island Logic. Eighteen months in gestation, a year in the coding, it is a six-module system designed to allow the user to compose, edit and play music; design sound 'envelopes'; and finally print the whole work out on continuous stationery.

It is, in a word, a fabulous package.

Considering that musical notation is, like a knitting pattern, nothing more or less than a flowchart and thus an ideal candidate for computerisation, it is rather remakable that, until now, few packages of any practical use have been released. Atari and BBC machines, both of which boast potential sound facilities not greatly less than the 64's, have been all but ignored.

As a matter of fact, the present writer has had in his possession for over a year now an early ancestor of *The Music System*; a rather primitive fore runner, as it now turns out, but still as good as anything on the 64 including the vaunted *Musicalc*. In those days this prototype consisted of two BBC discs: the Editor and the Envelope Generator. Without going too much at this stage into the order in which the various modules were created, the EG was and remains an easy-to-use system for shaping sound envelopes via the Beeb's SOUND and ENVELOPE statements. Today it is called The Synthesizer, and forms one-fourth of the total £24.95 package.



Screens from the CBM 64 version, Keyboard module engaged.

What it needed was (a) some method of real-time playing — a keyboard — and (b) a printout facility so that you could obtain hard-copies of your compositions for other people's use. You also needed some method of playing more than 255 notes in one string.

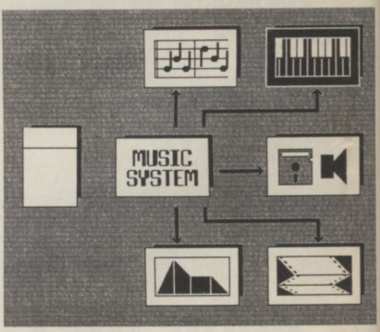
The Music System that you can now buy is a smart, large-size box containing two floppies and an excellent manual (you will also need one extra disc for temporary storage). Booting up the Master Disc gives you the most 'Macalike' front panel I have ever seen on a non-Macintosh machine. In fact, the package has been extensively redesigned since a year ago using the Mac's (Island has a dozen of the things) mouse and icon technology, complete with terribly friendly pop-up instructions. From this front end you can go to any of the main functions of the system.

To cut a long story short (and anyway the whole package is so well worth exploring that I don't want to spoil it for you), The Editor is the heart of the system. There are now four separate voices (the fourth used for a rhythm or noise channel), and the selection of notes to place on the staves is as simple as can be. But what (I hear you cry) if you can't read or write music? In which case select Keyboard — whereupon you are confronted with a keyboard icon, and the real keyboard comes alive. A touch on a key gives you a note, while on the icon the appropriate key signals an in-use state. You can of course make full use of the Synthesizer facility, and best of all there is a four-track recorder so that you can build up compositions in real time — again, aided at puzzle points by those friendly pop-up messages.

There remain the Printer and Linker options. Taking the latter first, this is a utility so that you can link up pieces of music of more than 255 notes at a time and play them as a single composition. Up to ten 225-note pieces can be linked at a time.

The Printer is the most challenging option of all, and the one that gave Island the most problems (though all is now well). In a word, compositions can be printed out horizontally on continuous stationery using most major-format dot-matrix printers. It is quite wonderful to see **BIG K Suite in X** rolling off the office Epson . . . gives us a bit of class.

To conclude, this package represents quite extraordinary value for money, and is in my opinion a professional tool— certainly a great many of Island's roll-call of pro musicians had a hand in its development, including Steve Winwood. It is fully the equal of a £300 word processor in sophistication — and you must take my word for it there are a great many features that space does not permit me to mention. If you've ever wanted to compose or simply play music on a synthesizer, then this is the product for you. Full marks to all concerned.



The Mac-style Front Panel. Spacebar/Return takes you through easily.

PS. It comes out on Commodore 64 soon, so if you were thinking of buying *Musicalc* or any of the other packages reviewed recently by Bill Bennett (BIG K, Jan.) . . . hold on a couple of months, that's all. A nod's as good as a wink to a blind something-or-other.

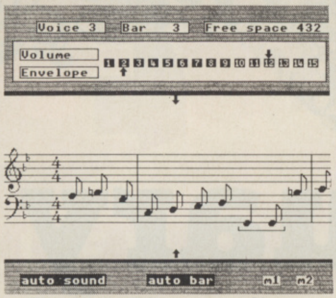
From: ISLAND LOGIC
Format: cassette/disc
Price: £24.95
Graphics: KKK
Playability: Mozart
Addictiveness: KKK

NOT from Jamaica—the Island System

WHEN A well-known independent record company decides to go into the computer software business, there's just two ways to do it. One, advertise for programs, pick the best of the submissions and take it from there. Two, start from scratch with a master plan, look ahead, and get the product absolutely right before releasing a thing.

Island Logic took the latter course. The man who decided what that was — and is — to be is the improbably named, but utterly real, Adrian Boot.

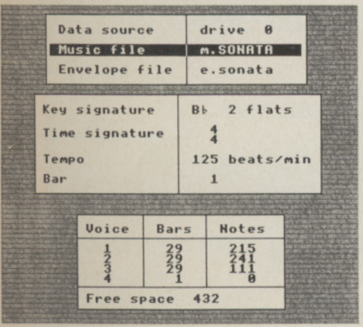
Boot is an elfin, articulate, mega-speedy character with an exotically mixed background in (a) mainframe computing, (b) teaching, and latterly (c) rock photography. He has several substantial-selling books to his name, the most famous being *Babylon on a Thin Wire.* With his Jamaican connections (he taught in JA for several years), he naturally came to know Island and its billionaire founder-owner, Chris Blackwell, well enough to be the expert-on-hand when Blackwell, who's had more than one good creative idea in his time, began to mull over the idea of Island's branching out into computer software.



The Main Edit screen. Notes can be entered and modified here, and separate voices played over.

Even in those days Boot urged Blackwell not to invest over-heavily (if at all) in games software. "To me, 'Entertainment Software' was a better definition of what we should be attempting to do", he says. "Some games are superbly well done but even so there seemed to be to be limits in that direction." In fact, the very first plan of all was to take a lot of BBC machines to Jamaica (where Blackwell has a second base of operations, largely because of Island's reggae links) and dish these out to various organisations on a self-help basis. "We ditched this plan," says Boot, "when we realised that no way could those machines expect any maintenance, or spare parts, or any service backup at all. In six months, in that climate, they'd all have been rusting away on shelves."

Edit Mode status screen. All four voices can be played simultaneously from here.



Data source	drive 0
Music file	m.SONATA
Envelope file	e.sonata

Key signature	B♭ 2 flats
Time signature	4/4
Tempo	125 beats/min
Bar	1

Voice	Bars	Notes
1	29	215
2	29	241
3	29	111
4	1	0

Free space 432

It was decided to centre the new software operation on London. "At the time we hadn't any real product ideas", admits Boot, "but it did seem to me that whatever we did should take into account the increased ownership of disc drives; we also decided to target the BBC machine, and a little later on the Commodore 64".

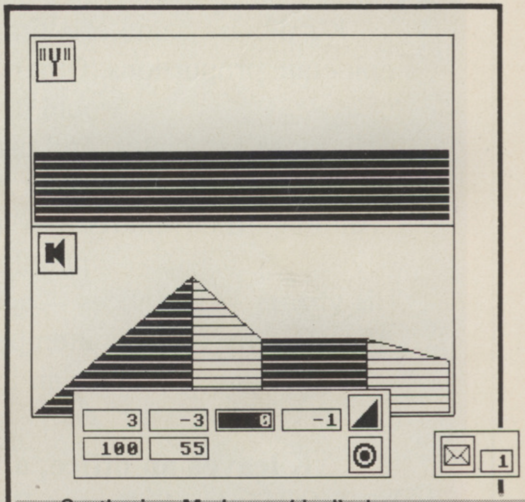
Island being the renowned music company it is, an obvious first choice of product was "something to do with music. All my life I've been involved with and appreciative of music, and yet I can't read or write it. It was obvious that what was needed was a superior music processor, a tool which would mean that people like me could buy some sheet music, boot up the program, enter the notes as they appeared on the stave, and play the music!"

Attending one of the major computer fairs, he visited the small stand operated by the little-known (as yet) Sheffield company System Software — "until that time they'd been producing small quality utilities for the BBC machine. But they also had two modules I was very interested in, an Envelope Generator and a Music Editor" *(described in feature opposite).* Clearly here were the bones of the ultimate BBC music processor Boot had in mind. To cut a long story short, the two companies got together, hardware was bought, and Island Logic was at last in business.

Enter the Apple Macintosh. There are business links (via a third party common to both) between Apple and Island Logic, and one result of this was that Island were in possession of several Macs over a year ago — long before virtually anybody else in the UK. These Macs had the US operating system and moreover use a processor (the Motorola 68000) entirely different from the 6502 of the Beeb and CBM 64, and so were of limited use as development tools, but at the same time the revolutionary friendliness of the Mac's front end — the famed pull-down menus, icons and all the rest of it — set entirely new standards in how operating system software ought to work. Boot admits to a heavy influence from this direction, and indeed the first thing one notices about *The Music System* is how uncannily Macalike it makes a BBC look.

The same effect, apparently, is to be seen on the Commodore version, which may well be approaching the stores as you read this (though you know what schedules are). But that's not all Island have up their sleeves. Although the first six or so months of the company's (very low profile) existence were largely devoted to the re-design of the System system, Boot realised early on that a steady — if not overdone — stream of product ("Non-fiction software" is his name for it) was necessary. So while some programmers steadily tapped away at BBC, Mac or CBM 64 keyboards, others were hard at work on entirely new sorts of funware. To kick off with, there's a dazzling Helicopter Simulator (and when I say dazzling I mean dazzling), which will operate with plug-in database modules that can convert it to ANY sort of vehicular simulator. In this connection, your reporter has seen, on a standard BBC machine, 3D rotation and fills about six times as fast as *Elite* and *in full colour* besides.

Boot knows that Island Logic is making excellent products — has made the best of all possible starts. And he's keen to bestow credit where it's due. One question (who did what on The Music System, final version) causes minutes of anguish as he meticulously details the entire case history of every module. But he's very keen that the boys at System — David Ellis, Geoffrey Ellis, Phil Black — should take their proper share of the credit.



Synthesizer Mode graphic display. Envelopes, once designed, can be saved and loaded at will.

He remains unrepentant about games. "The Wowie-Zowie Factor, as I call it, lasts, at best, about three days. Then the purchaser has either cracked it, and is bored, or hasn't cracked it — and is bored. Either way he's bored. Our aim at Island is to produce stuff that is actually useful, in helping people destroy their own material for boredom."

Obituary

BIG K MAGAZINE MARCH 1984-MARCH 1985

Earlier this year we were grieved to hear the news of the sudden passing of Big K. This respected figure went to his final rest after an unexpected, shocking relapse which came as a bitter climax to his twelve-month struggle against what everybody said were impossible odds. Although distinguished from his contemporaries by the vigour of his personality, K had always been anorexic; the end — thought to have been hastened by the sudden onset of a bout of *Endofyearensis Financencis Managerialis* — came swiftly, and was all the more surprising since, at the same time, other diagnosticians were predicting a recovery, and perhaps even some modest growth. As things stand, sadly, the month of March was his last on earth.

K's demise came at a time when this sinister form of illness seems to have achieved epidemic proportions. Others of his contemporaries preceded him to the Tomb. More (alas! would it were not so!) will follow. All flesh is grass.

His close associates, and his loyal followers — their exact number remains unknown but the fervour of their support has always been heartwarming — unite in mourning their loss. Although their interests in his continuing health were not precisely convergent, they ran parallel and were indeed contiguous at points.

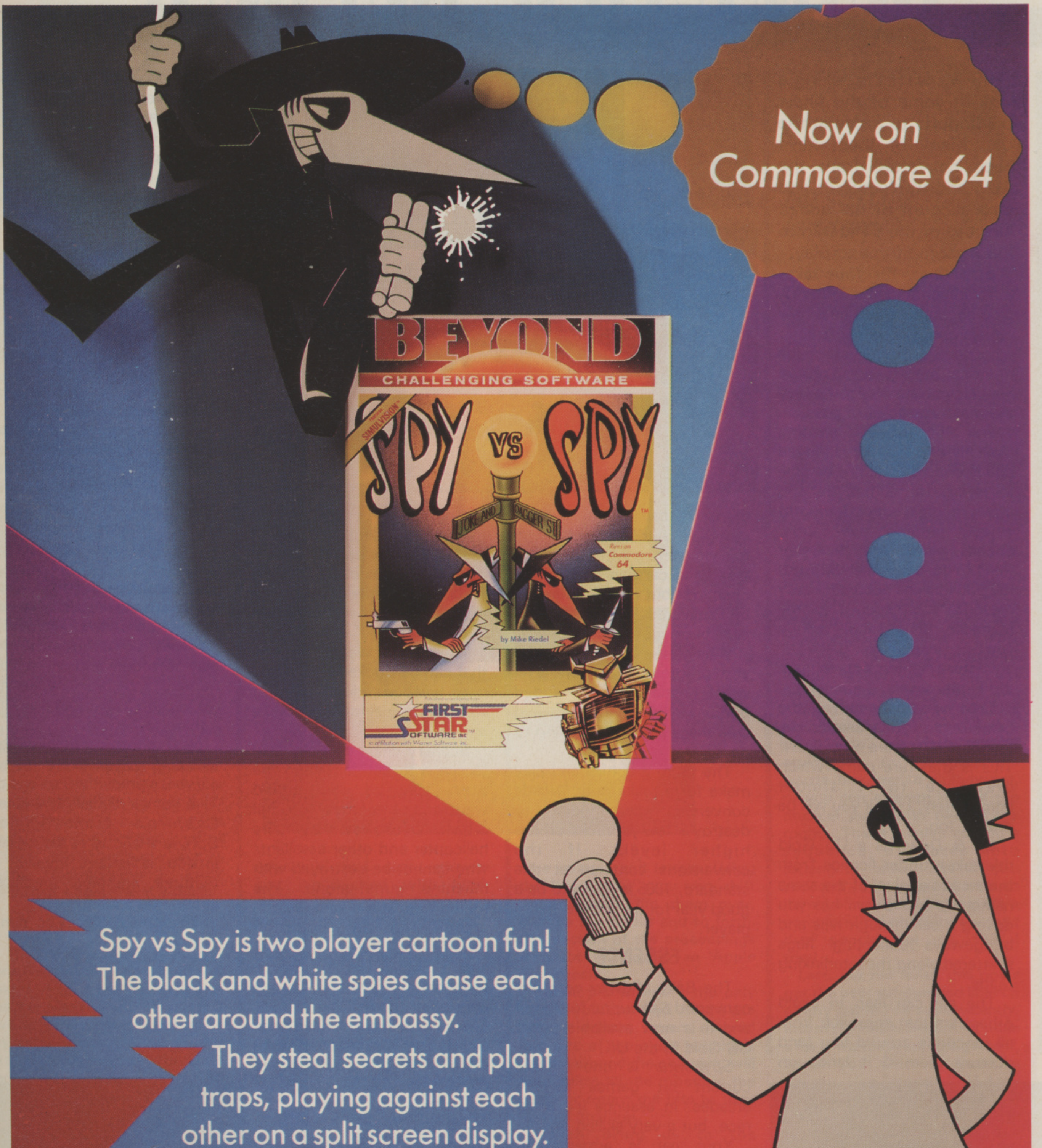
His virtues — and vices — sprang from the same eccentricity which distinguished him from the majority of his contemporaries. Alas, on their own they were not enough to save him from falling victim to an infectious and deadly illness which has already carried off so many others.

K leaves an office, a typewriter, three ashtrays, some filing cabinets, an Interceptor Software Poster, a number of cassette boxes without cassettes or inlays, three floppy discs which have been used to wedge up a table leg, a table with one short leg, three phones, a large box of unidentifiable interface cables, an Atari paddle controller, and a Vic-20.

P.S. Some articles in this issue are marked "Continued next month". Mourners are respectfully advised not to hold their breath waiting.

BEYOND

CHALLENGING SOFTWARE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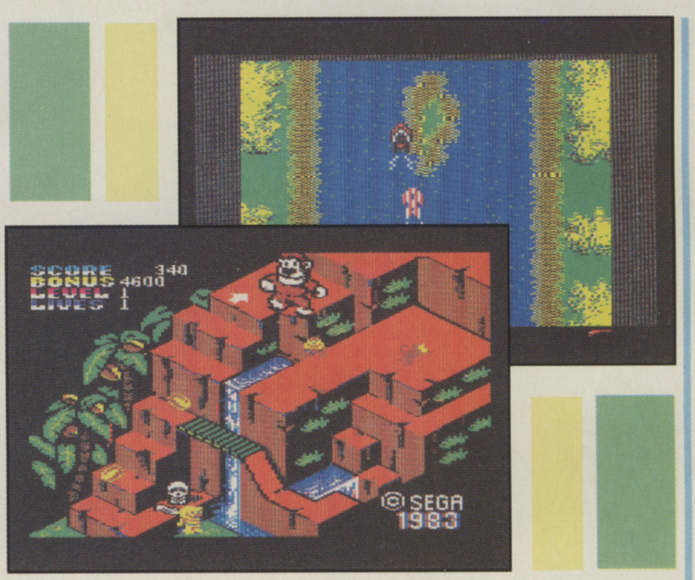
IN SEARCH OF THE ROLLING STONES

TONY TAKOUSHI looks ahead to the New Era of Hi-Res.



THIS MONTH I'm taking a look at some of the finest US imports to arrive in the UK. Many of them have been converted from the Atari and Apple micros and take account of the added facilities of the 64 to add to the presentation and play.

BC's Quest for Tires takes the traditional theme of *Pitfall*-type encounters and puts new visuals on it. BC is a character who rides a monocycle made of stone; he is trying to rescue his beloved but along the way there are obstacles to pass.

The sight of BC speeding over hill and dale to his loved one is one you will not be able to resist. He humps up and down on his super (smooth) wheel, leaping over logs, ditches, lakes and ducks under trees. You can accelerate but the obstacles become really mean at high speeds. Some obstacles do not simply require you to leap over them — adventure elements creep in on the higher levels.

The whole theme of the game is beautifully seen in the graphics. They are SPOT ON! This is that rare game which drew me to it almost immediately. I think you will be drawn, too.

Up & Down is a US Gold title taken under licence from the arcade original of the same name. *Up and Down* has you driving a car through hills and bridgeways collecting flags scattered along the interlinking roads.

The car can leap to avoid other cars that approach from all junctions around you (and destroy them if it lands on them). It can also leap from one track to another if it needs to collect a flag from a different lane. The car can move in all directions but the flags have to be collected as quickly as possible to get a time bonus.

When they are all collected you progress to a new level with nastier roads, added bonus items to collect, and cars that take some beating to pass.

The tune, graphics and play make for a really good arcade conversion that's going to destroy a few joysticks on the higher levels. If the conversions continue at this standard, 1985 is going to be a good year for the arcade/micro player.

ESSENCE

The Bally Midway corp has converted *Spyhunter* for the 64 and it is now available under US Gold in the UK.

Spyhunter is one of the current hit games in the arcades. In essence it's a car race, but a very skilled one.

Your car is armed with machine guns to destroy the enemy cars ahead of you. Enemy cars can bump you off the road into lanes — and destruction — or you can beat them to it! Bumping them off the road is not always a good idea; your tyres can be spiked or a ham sandwich is in the making if another sneaks up behind you.

There is a weapons truck that can be docked with and a new weapon added to your car. These include oil, smoke and missiles.

Scenery changes from road to sea with detours along the way. Use of the added weapons becomes crucial when attacked by the helicopter and other assailants who cannot be destroyed with machine guns alone. The theme tune is the same as the arcade (go on, pump it through the stereo, oh bliss) and it FEELS like the arcade version. (That's what impressed the hell out of me!) The original licences have been closely followed (Atarisoft take note) and superlative conversions are available for the enthusiast.

Congo Bongo is another release from US Gold, but there are two versions of the SAME game out there! *Congo Bongo* in cartridge format is a standard 16K game for the Commodore 64 while the other deluxe version is hi-res.

The cartridge version is OK, but the hi-res vesion is stunning. It features four screens of action where your intrepid hero has to climb, leap and slide his way to safety.

NO JUSTICE

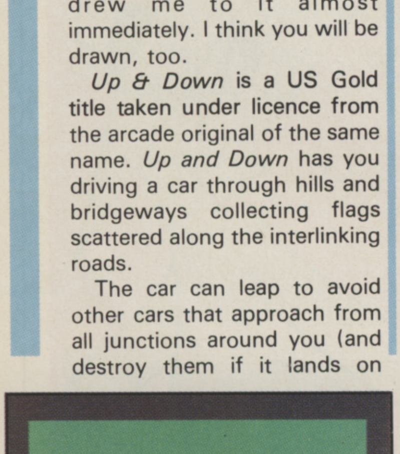
I can't begin to do the presentation justice — it is simply one of the finest I have ever seen. Imagine four jungle scenarios in full hi-res . . . ultra-colourful graphics — WOW!

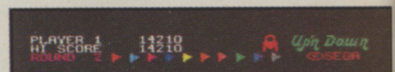
The first screen has you clambering up a hill avoiding coffee beans an ape throws at you, sliding down ramps, and avoiding gormless apes as you leap across a waterfall to reach safety and the next screen (phew!).

Screen two has you trying to cross a river on the backs of rhinos (oh those graphics!!). As with all four screens the play is tough and the action frenetic. I recommend the hi-res version as a joy to play and a thing to behold.

Next month *Up Front* will be featuring an exclusive review of what I predict will be one of THE games of 1985. It is called *Cauldron* from Palace Software and is in the classic arcade adventure mould. It features stunning graphics, action and sound.

This one is HOT so don't miss it!



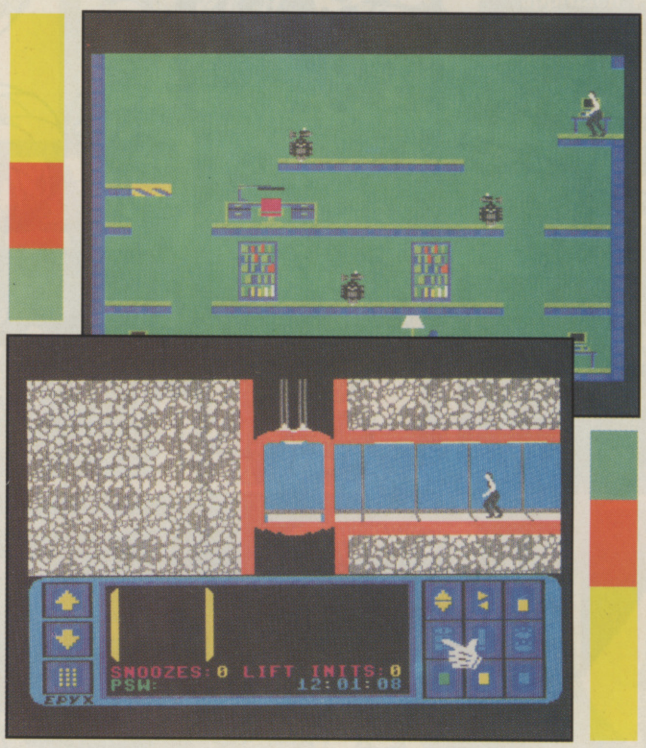


IMPOSSIBLE MISSION For CBM64

THE RUNNING, JUMPING, SCREAMING MAN

FIN FAHEY takes a flying leap at IMPOSSIBLE MISSION, a game that gives new respectability to the ladders 'n' ledges environment.

I have to confess to being a *Kong*-hater. I'm on record as saying that if some hapless software house ever has the temerity to send me another game involving ledges, girders, ladders, trampolines, lifts, etc., etc., ad nauseam, then I will personally go round and reason with the culprits, preferably with a baseball bat. So here I am having to eat my words (which is no laughing matter considering the inferior and tasteless brand of line printer paper that Big K issues me with), for *Impossible Mission* is indeed a *Kong* variant, and certainly it has ledges and lifts, but curses ... it's also a totally zarjaz bit of games design. So, from across the pond, too. CBS have joined Ariolasoft and U.S. Gold in the lucrative business of zapping the U.K. market with U.S. imports, some of which are disturbingly good — I have a feeling we'd better pull our socks up in a hurry. This one is by U.S. software house Epyx and fortunately, for once, it isn't an example of the kind of "Cold War" software we've seen floating round lately (although it does have nukes).



DEFENCE

The game scenario concerns one Elvin, a mad scientist of the old school. Elvin is a super-hacker who has broken into the world's defence computer systems in order to launch the usual tiresome nuclear holocaust. The only way to stop him is to search his underground installation to obtain the entry code for his control room. This is a complex and lengthy task, and so far I have consistently failed to save the world.

There are 32 rooms to negotiate, and sadly, they're just jam-packed with killer robots. Not only is their touch death, but many of them can fire deadly beams. If you can get past them the next problem is getting enough time to search the furniture for jigsaw puzzle bits. As you collect these bits, they're entered into your "pocket computer" which you can access in the safe corridors and lifts outside the rooms. Each puzzle piece is a little rectangle containing an apparently meaningless shape, but four shapes can be overlaid to give a completed puzzle, which in turn will give you one letter of Elvin's code word. There are 36 pieces in all, giving nine puzzles and letters. Using the "computer" you can shift them around, flip them over, change the colour and so forth. this section of the proceedings is a lot like using an Apple Macintosh.

Puzzle pieces aren't the only things you can find. There are passes which, when entered into one of the many terminals strewn around the complex, will immobilise all the robots in the room or return the lifts to their normal position.

Which bring us to the animation, the game's strongest point. It's the most convincing I've ever seen in a game of this sort — real cartoon standard. Most sprite animation uses a mere two shapes for a running figure, man with right leg raised, left leg planted, then left raised, right planted. The movement here is far more sophisticated, using, I'd say, at least eight frames to give a really smooth, flowing feel — the somersaults are unbelievable. The robots too, though called upon to do less, trundle around in a very believable way.

A TALKIE

Impossible Mission is very playable. For a change, I really felt that with each game played, my technique had improved just that little bit more, which is a great encouragement to play. It's nice having a choice of things to do, too. If you get bored dodging the robots and running up and down the lifts and platforms, you can always spend a restful break attempting to assemble the puzzle bits you've already got, or you can attempt one of the musical puzzles in two of the rooms. These involve sorting a sequence of notes into ascending order, and if you succeed you are issued with an "immobilise robots" pass. It's a complete impossibility for tone deaf people like me. Still I tried ...

Last, but not least, this one's got the best synthesised speech of any game I've seen recently, including *Ghostbusters.* It adds a lot of atmosphere to a game if, when you enter a room, a sinister vice intones "Kill him, my robots!". Creepy.

With any luck this game will put the whole *Kong* tradition to bed. It surely takes the form to its limits. Addictiveness? In the synthesised words of Elvin, "Another visitor! Stay a while. Stay ... *for ever!*". — F.F.

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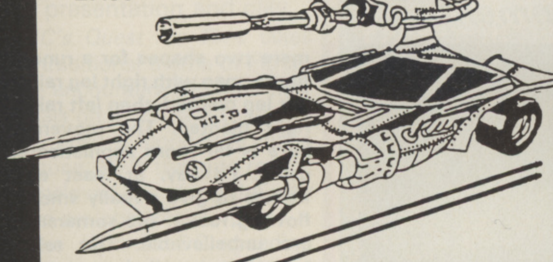

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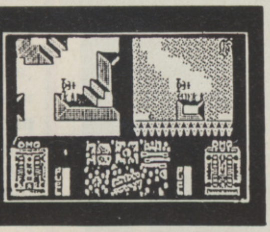

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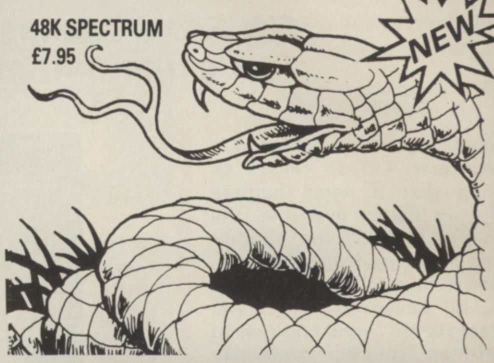

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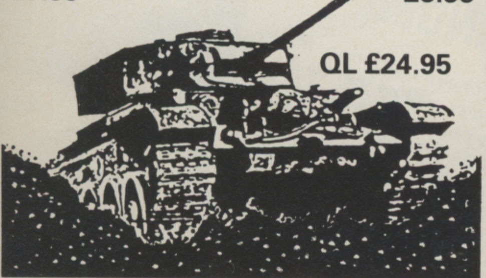

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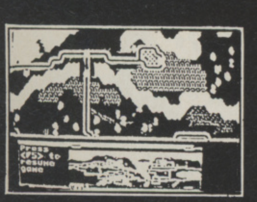

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K K K	= Magnifico!
K K	= Good-o
K	= So-So
None	= No-No

Reviewers–

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Steve Keaton
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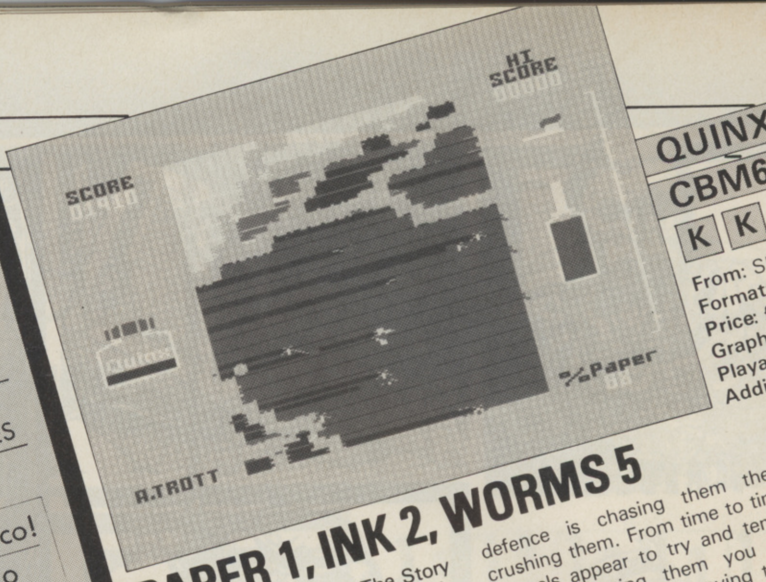


QUINX

CBM64

K K

From: SUPERSOFT
Format: cassette
Price: £6.95
Graphics: KK
Playability: KK
Addictiveness: KK

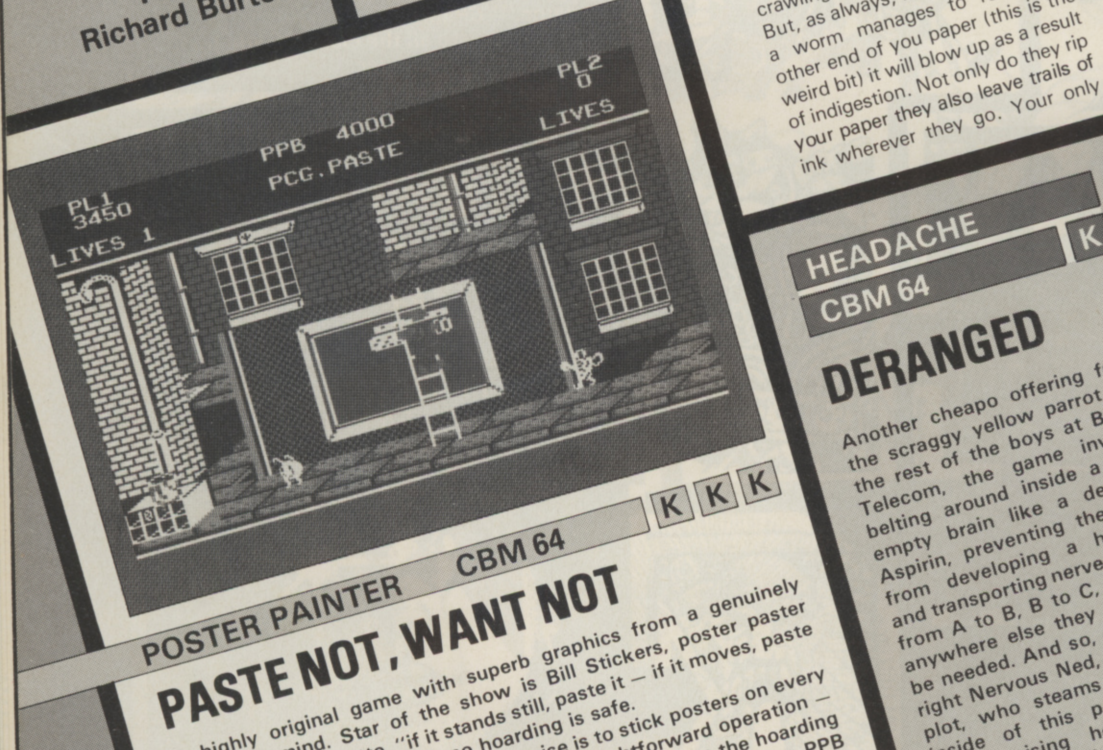
PAPER 1, INK 2, WORMS 5

What a weird idea . . . The Story goes as follows: Arthur Crown is studying for his final exam but he keeps getting nightmares (I wonder why) about his results.

You control a little man trying to stop paper-eating monsters crawling over your sheets of A4. But, as always, it isn't that easy. If a worm manages to reach the other end of you paper (this is the weird bit) it will blow up as a result of indigestion. Not only do they rip your paper they also leave trails of ink wherever they go. Your only defence is chasing them then crushing them. From time to time morsels appear to try and tempt you. By eating them you will increase points. By leaving them you lose points giving you no option.

Your game ends when less than 25% of the paper is covered with the wrong ink. To overcome this problem you simply cover it with tippit.

Quinx is very simple and is one of the most original games I have come across in a long while — **SC.**



POSTER PAINTER CBM 64

K K K

PASTE NOT, WANT NOT

A highly original game with superb graphics from a genuinely deranged mind. Star of the show is Bill Stickers, poster paster extraordinaire, motto, "if it stands still, paste it — if it moves, paste it anyway", against whom no hoarding is safe.

Simply put, the object of the exercise is to stick posters on every hoarding in town, a total of twelve. A straightforward operation — take one ladder, one paste brush and a bucket, paste the hoarding and hang the poster. Accuracy is important for should the PPB (Precision Pasting Bonus) drop, points fall in direct proportion. Similarly, should the PCG (Paste Consistency Gauge) wander the paste becomes too thick or thin and posters tend not to stick.

Resident nasties are Gnurds, Wazzocks and Drain Brains, who belt back and forth across the screen, frying Bills like they were going out of fashion and lumping up buckets of paste.

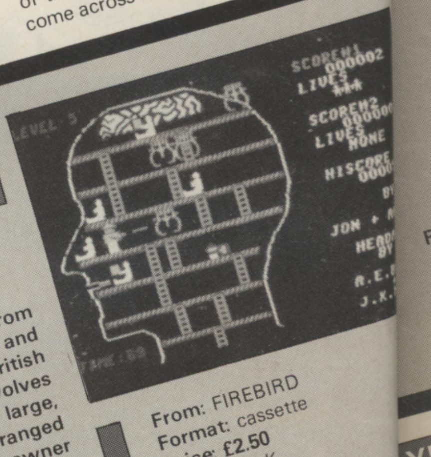
The sound is as good as the graphics, if slightly repetitive, and the programmer shows the meaner side of his character by recommending the sound be cranked up high. Try it if you want but take a word of advice from one who knows, total insanity and forty neighbours hammering on the front door are consequences needing a fair degree of consideration. — K.A.

From: TASK SET
Format: cassette
Price: £6.90
Graphics: KKK
Playability: KKK
Addictiveness: KKK

HEADACHE

K

CBM 64



DERANGED

Another cheapo offering from the scraggy yellow parrot and the rest of the boys at British Telecom, the game involves belting around inside a large, empty brain like a deranged Aspirin, preventing the owner from developing a headache and transporting nerve impulses from A to B, B to C, Z to X or anywhere else they happen to be needed. And so, enter stage right Nervous Ned, hero of the plot, who steams around the inside of this poor geezer's head, raising hell with the beasties — Throbs — and sorting out Head Banger as he potters around doling out headaches like they're going out of fashion.

The head is vaguely head-shaped but there any resemblance shudders to a sharp and violent stop. The interior decor leaves little room for grey matter of any volume, consisting mainly of ladders and platforms — 'NOT . . . ladders and platforms' you cry. Yes, ladders and platforms, again. And the game-play is standard ladders and platforms. For the price it's difficult to slag it completely but all the same it doesn't have the kind of appeal that makes you want to shell out the cash. — K.A.

From: FIREBIRD
Format: cassette
Price: £2.50
Graphics: K
Playability: KK
Addictiveness: K

GUZZLER

CBM64

K K

CALORIES

This is a fun program. It cops from arcade mothergames like *Ladybug*. Your piglet guzzler (I think he's actually meant to be a mouse) chomps his way around a maze — there are seven food cells to penetrate — and has to pick up a key to get into each one. Slurp all the grub and you're on to the next screen. The quirk comes with the added dietary factor (an idea swiped perhaps from DKTronics' *Apple Jam*): each time he eats he's too fat to get into all sectors, and has to slim down by contacting Deflator Dennis who patrols the edge of the screen. There's also a bonus creature to nab on each level.

Jolly, and no doubt jolly familiar to all you hardcore blasters. But I like this one. Although the graphics aren't shattering they're precise and pin-bright, and the music is fab — a different Scott Joplin rag for every maze, and (brilliant!) 'Nobody Does It Better' for the hall of fame! Excellent response from keyboard or stick, and it's easy enough to get into without tedious hours of practice. — **RC.**

From: INTERCEPTOR
Format: cassette
Price: £7.00 (disc £9.00)
Graphics: KK
Playability: KKK
Addictiveness: KK

KIKSTART

CBM 64

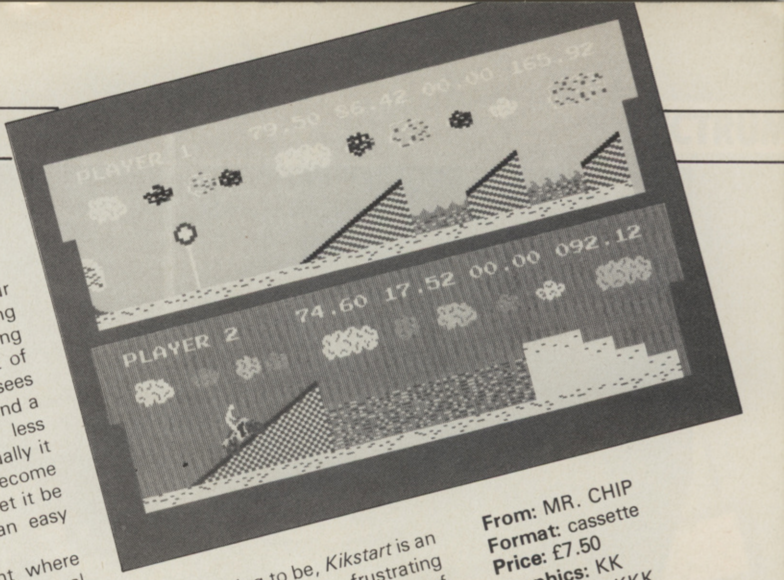
K K

BRRRMM!

The first three quarters of an hour at least is heavily devoted to falling off buses, sliding chin first along gravel tracks and crawling out of the mud. The next hour or so sees a small amounmt of control and a large number of slightly less spectacular spills and eventually it might be possible to become reasonably proficient, but let it be made clear, this is not an easy game.

Trials riding, the event where normally sane men spend several hours on motorcycles, hurling themselves over cars, through hedges and into deep ditches, collecting large amounts of mud and generally making themselves unpopular with the wildlife, is the name of the game. Although to what extent the hobby of madmen can realistically be simulated on a computer is a debatable point, relying, as it does on intense pain for enjoyment.

On the other hand, if you forget what it's trying to be, *Kikstart* is an enjoyable, if initially frustrating game. You get to choose lots of nice obstacles to fall from, hedges, barrels, buses, that kind of thing — and the controls bear a passing resemblance to the real thing — you can wheelie, jump, go faster or go slower. If you get fed up playing against the clock you can even enlist the help of a friend and let him fall off with you. — **K.R.**

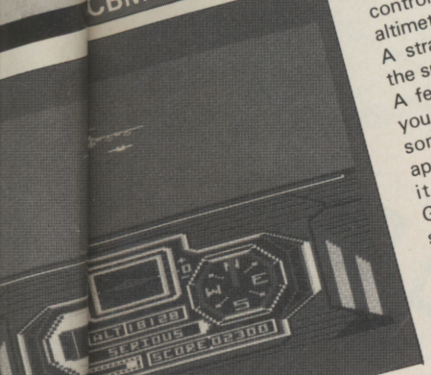

PLAYER 1 79.50 56.42 00.00 165.92
PLAYER 2 74.60 17.52 00.00 092.12

From: MR. CHIP
Format: cassette
Price: £7.50
Graphics: KK
Playability: KKK
Addictiveness: KK

LYER FOX

CBM 64

K K



Picture if you can, a stone-deaf drunk chain-smoker with laryngitis and asthma, gargling barbed wire and desperately trying to cram a hedgehog into his vocal tract. That's *Flyer Fox*, one of the new ''Tymac Talkies'' — they're kidding, aren't they? — and sure enough it talks, but if it says anything important it's not in any language I understand.

This is a fighter simulation, after a fashion, the idea being to guide your ''sleek jet fighter'' through the skies, protecting a commercial Jumbo jet from those *nasty* Russkies in their Mig fighters.

You are presented with a view from a cockpit window with a control panel along the bottom — altimeter, radar, that sort of thing. A strangled screech comes from the speaker and the action begins. A few blips appear on the radar, you swing round and suddenly something big and plane-like appears on the screen. You fire at it, ''GRUURAAGH . . . , GRRRMMM UGH,'' says somebody as the plane bursts into flame and you go down with it. The frantic grunting coming from the speaker was trying to tell you you were shooting down the Jumbo, not clever. Next time around things are better, you get to be shot down without demolishing that which you're trying to protect.

After a while it becomes quite easy to control, enemy planes fly across the screen in ''3D'' and the horizon tilts nicely on the turn. There are some strange ideas about the art of language but the graphics are pretty neat and all things considered it's quite a passable game. — **K.A.**

From: TYMAC
Format: cassette
Price: £9.95
Grapahics: KK
Playabililty: KK
Addictiveness: KK

QUANGO

CBM64

K

Interceptor's games never seem to go far beyond the maze/search/destroy equation but they're finding plenty of new twists on the theme. In this one you control a robot who tends an underground mushroom farm on eight levels (this is one ambitious tin man). The nasties are rival robots (who probably can't afford their own greenhouse), weeds that would pose a problem on *Gardeners' Question Time*, falling boulders and the like. All your (t)rusty invention has to do is pick up the mushrooms on each level, revealed as a geometrical nightmare of a labyrinth on a four-way scrolling screen. He has a limited amount of bombs which have a habit of blowing him off his own castors.

It's a hard game that gets harder — the bottom four caverns are liable to flood, on top of everything else. Because the maze is so damn sharp on the corners it's tough to beat hazards which move so quickly. A stick with precision response is mandatory to get anywhere with the game, which is well-executed but a bit lacking in character. The Quango? It's this bird which hatches out when you get too near one of its eggs . . . well, I told you it was hard. — **RC.**

From: INTERCEPTOR
Format: cassette
Price: £7.00 (disc £9.00)
Graphics: KK
Playability: K
Addictiveness: K

Empire CBM64

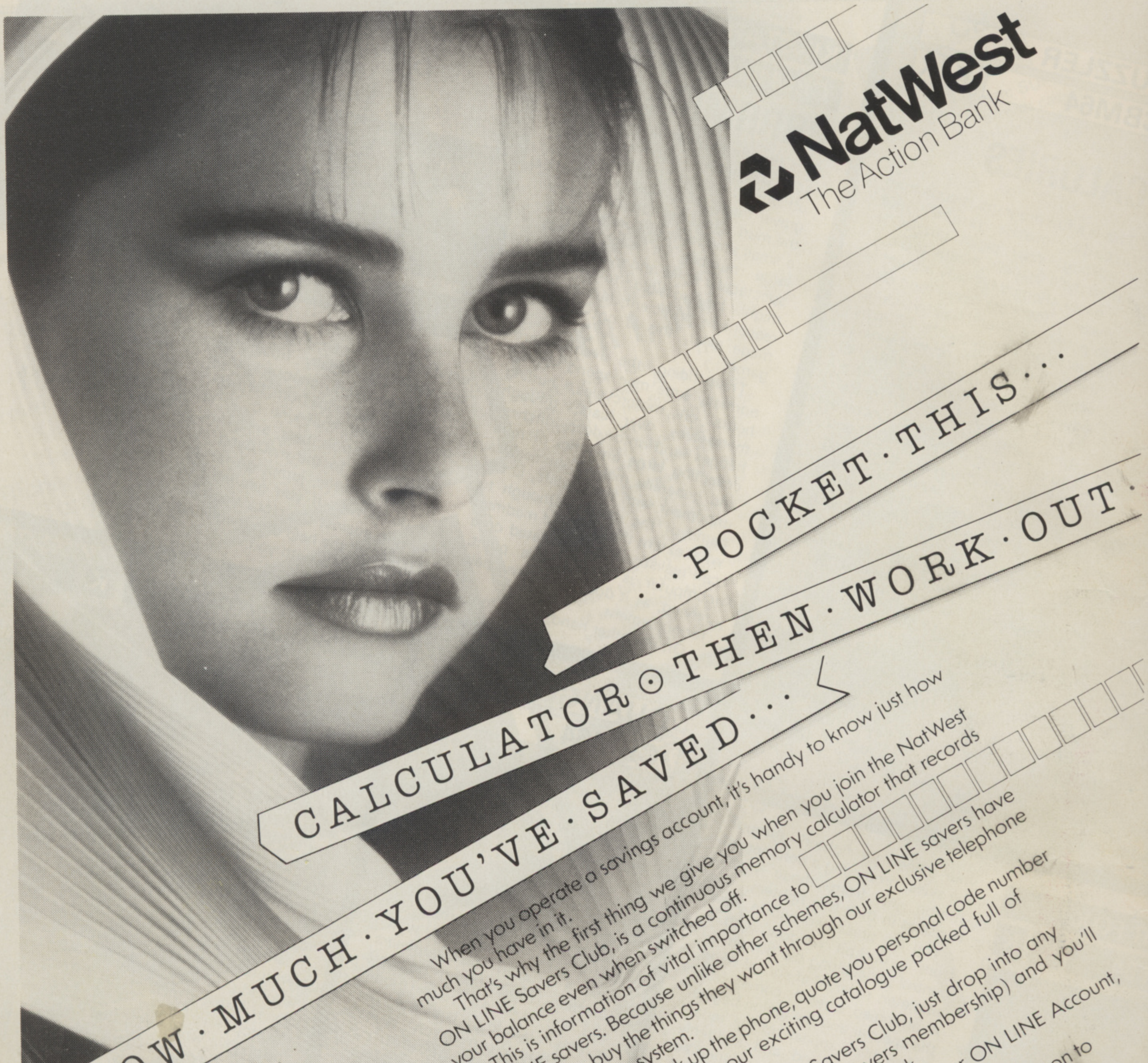
K

War strategy games have made a dismal showing on micros thus far: screen displays simply can't hold all the detail you could find in a typical Avalon Hill set-up. *Empire* isn't nearly so ambitious — it's a simple, rather ponderous translation of *Risk*. You play the computer (the ''evil COM empire'', hur hur); each side starts with 39 armies, and they're deployed over 39 territories across the globe; the play, however, is *not* in 39 steps. Simple face-offs between opposing units decide battles and fresh armies are awarded for territorial gains. COM behaves like a suicidal dunderhead on the lower levels but it's meaner than Attila on top level eight. The screen displays a world map that can be scaled down to one of four sections, and 'strategy' boils down to matters of mathematics. You have less? You lose. That kinda thing.

It's pretty unexciting. The graphics are clear, the gameplay functional, but it all ads up to treacly action and the slow grind of territorial gains. The game somebody should convert is *Diplomacy* — there's a challenge for some brilliant hacker. — **R.C.**

From: SHARDS SOFTWARE
Format: cassette
Price: £7.50
Graphics: K
Playability: K
Addictiveness: K

NatWest
The Action Bank



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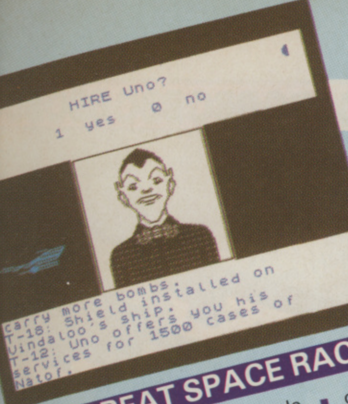
EC2B 2GN.

BK3

All orders for goods supplied through the On Line system will be fulfilled by Empire Stores Ltd., at 18 Canal Road, Bradford, West Yorkshire. This scheme is available to any applicant under the age of 19.
For current interest rate please ask at your local NatWest branch.



```
HIRE Uno?
1  yes   0  no

carry more bombs.
T-18: Shield installed on
Vindaloo's ship.
T-12: Uno offers you his
services for 1500 cases of
Natof.
```

HEADS DOWN

THE GREAT SPACE RACE Spectrum 48K K

Among the many turkeys on sale this Christmas past could be found *The Great Space Race* that mega-hyped, long-promised follow-up to *Valhalla*. Resplendent in a plush, over-size plastic case, containing a glossy 56-page manual and colour poster, the game — pardon me, ''computer movie'' (Legend are into that socko boffo stuff) — promised much . . . and delivered little.

Far from the gods, myths and legends of *Valhalla*, the folks at Legend have got right down to basics with *The Great Space Race* (or *TGSR* from here on in). You are invited to become a galactic booze runner. Seems the civilized galaxy has become hooked on Natof (''Name to Follow''), a miracle drink that can get you paralytic without ever producing a hangover and, just for good measure contains all the nutrition needed for a good, healthy if alcoholic life (Mary W will love this one). The demand is there — you have to fill it.

To do this you hire four racers to deliver crates of the stuff to 96 space stations in different parts of the galaxy. The first one to complete the course wins the race. They are only hindered in their work by roaming pirates, booby-trapped space wrecks, over-zealous police and a few other pitfalls which can knock out your racers one by one.

The game/movie comprises of two main phases. In the first you have to hire the racers. Eight are offered (with exotic names like Noxin, Gurm, Urg, Vindaloo, Haberdaber) with fees on a sliding scale according to capability and performance. Decisions to hire or not have a time limit and hesitations can lumber you with unwanted racers, automatically assigned. Each racer must also be kitted out with weaponry, both defensive and offensive. Payment for everything comes out of your initial allocation of 50,000 cases of Natof.

Kitting out complete, the ''race'' begins and consists of your racers, in strict rotation, visiting various stations, off-loading crates of Natof, then moving onto the next.

The screen display consists of a central graphics area sandwiched between two large text windows; the lower giving events and reports and the upper offering options — usually a yes/no decision with a time limit given before the computer takes over and makes the decision for you. The player's toughest task is to decide which of two keys has to be pressed.

During the race the player is aroused from his stupor every so often to deal with a situation; sobering up a racer, bribing police and pirates not to attack his racers or arrange for repairs — but only if he feels up to it. Occasionally there will be a bit of action as two ships engage in battle. This is terrifically exciting and well worth opening one eye for. That's basically it. Keep your racers in the game for as long as possible and hope that one makes the rounds safely in the shortest possible time.

To be fair some strategic elements are built in with ''personality factors'' ensuring that some characters will react to other characters in ''unpredictable ways''. Priorities can also be chosen as to whether winning means delivering to more stations than before or the same number in a shorter time.

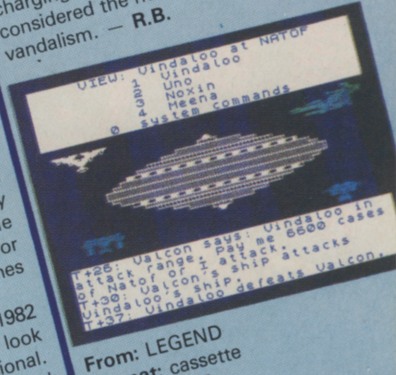
No doubt, given time, a player could exploit these strategic factors — but there's absolutely no incentive for him to do so. The minimal control takes away any involvement and reduces the player to a mere spectator. Fine for movies, but we're talking games here.

Graphics are great — by 1982 standards. In 1985 they look amateurish and unprofessional. The much-vaunted ''facial expression'' routine for the *TGSR* characters comes down to merely a ''happy'' or ''sad'' face depending on decisions.

Animation is of a similar primitive quality and general screen presentation is poor. Even the concept itself is not new. Bug-Byte's *Star Trader* and Pixel's early but enjoyable *Trader* multi-parter have been there before.

The best comes last: the game is partly in BASIC, which can be accessed by a simple BREAK command. Unforgivable in this day and age.

In the final analysis, *TGSR* is a major disappointment. It is a retrograde step from a company that promised innovation and quality with its first release — and charging £15 a go should be considered the next worst thing to vandalism. — **R.B.**



```
VIEW: Vindaloo at NATOF
      1  Vindaloo
      2  Uno
      3  Noxin
      4  Meena
   0  system commands

T+26: Valcon says: Vindaloo in
attack range. Pay me 6600 cases
of Natof or I attack.
T+30: Valcon's ship attacks
Vindaloo's ship.
T+37: Vindaloo defeats Valcon.
```

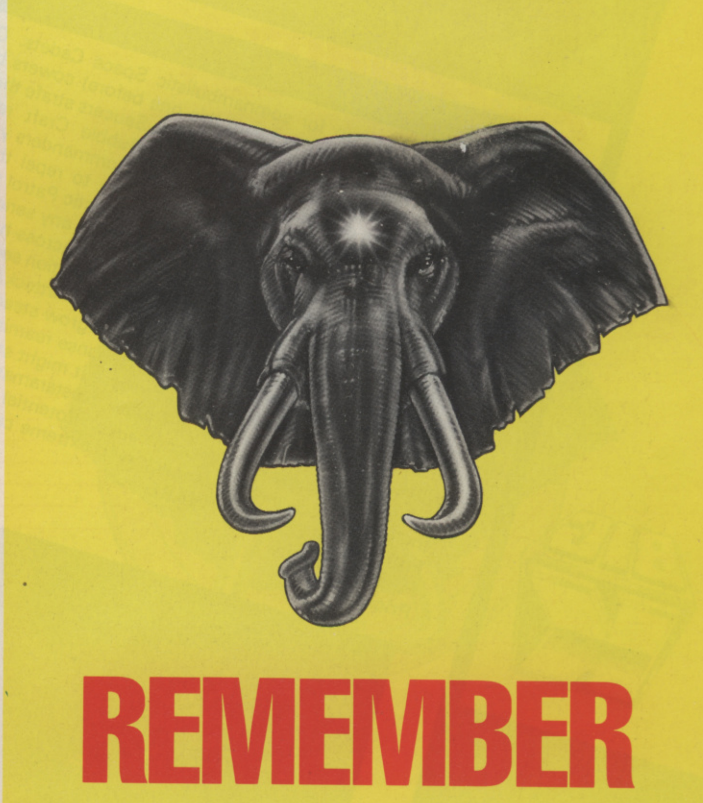
From: LEGEND
Format: cassette
Price: £14.95
Graphics: K
Playabiliity: K
Addictiveness: None

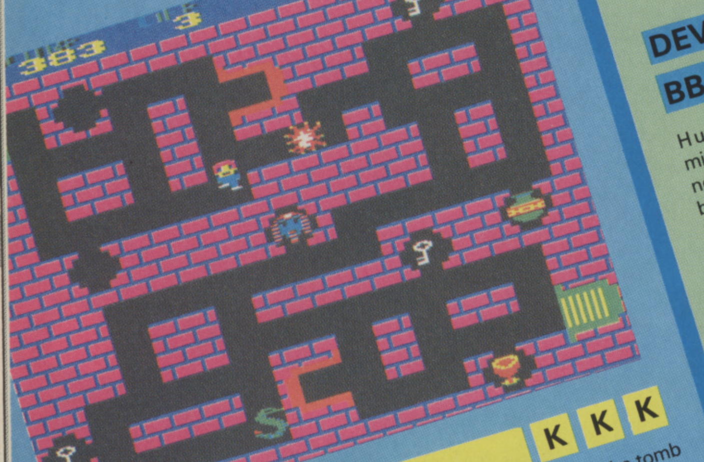
THE RUNES OF ZENDOS K K
Spectrum 48K

DIRTY DOZEN

Sequel to *Oracle's Cave,* perhaps the first animated adventure, *Zendos* is a series of twelve adventures working on two different levels. On the simpler level, it presents a series of problems to be solved as your man roams corridors, climbs ladders and confronts various animate and inanimate obstacles. The same problems recur in different sequences in each adventure so, in theory, once you've solved them in one adventure, you can deal with them pretty handily in all the rest. However, on another level, your task is harder. At the heart of each adventure is an hour glass in which Zendos has imprisoned a month, disrupting his neighbours' lives no little. To release them, eventually getting to the final screen, you must translate the runic inscription on each hour glass. In other words, what you get is a neat, if fairly simple, animated graphics adventure combined with a rather less simple job of code-breaking. — **J.C.**

From: DORCAS
Format: cassette
Price: £7.95
Graphics: KK
Playability: KK
Addictiveness: KK





CRYPT CAPERS BBC B

K K K

Somewhere deep beneath the shifting sands of the Sahara lurks the tomb of Pharaoh Willy and wealth beyond measure. Only you — and umpteen other Beeb owners — know of its location. A perilous expidition is inevitable. As you might suspect though, the tomb is far from hospitable. Indeed it makes The Well of Souls look not unlike Maplins. Dusty corridors rustle to the sound of weaving nakes and ancient fireballs while huge unstoppable boulders careen through the lower levels. Who would have thought that archaeology could be so 'azardous? The quest culiminates with the wholesale ransacking of the Pharoah's chamber on the 12th level, attained only after collecting all the Egyptian keys from the preceeding levels. These are cleared only after beating a bonus counter that decreaes when you waste a snake.

Visually the game is superb with quite enormous attention paid to detail. Tut's mask (one of the many treasures) is just glorious. Author Mike Jakobsen has obviously done his research well. Playwise it recalls *Mr Do* although owes little to it in execution. The difficulty levels are well judged and key response is excellent. The result is arcadia of the highest quality. After several hours play I was hauled from the BBC sandy, dishevelled and totally addicted. Something of a treasure I'd say. — **S.K.**

Graphics: KKK
Playability: KKK
Addictiveness: KKK

From: SOFTWARE PROJECTS
Format: cassette
Price: £7.95

GALACTIC PATROL BBC B

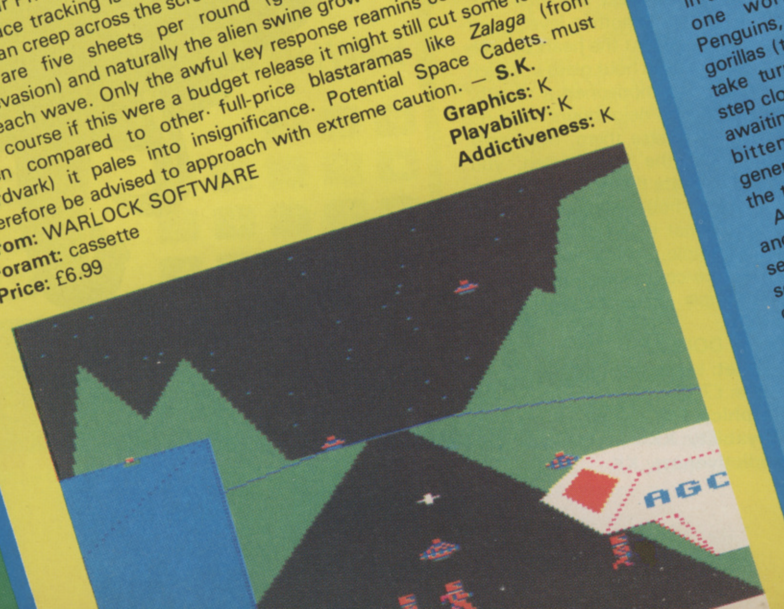
K

Sluggish shoot-em up for somnambulistic Space Cadets. Once again Neasden (stop me if you've heard this one before) cowers beneath the boot of an invading alien horde. Screaming Saucers strafe the scrambling, populace and swarms of gaily-painted Bubble Craft raze off-world Transporters. As one of the besieged Fleet Commanders you'll need the latest in heavy-duty, mega-precise weaponry to repel these unearthly bounders. Unfortunately in this particular Galactic Patrol there's no such gear. Your Photonic lance is far too polite to do any serious damage and deep-space tracking is next to impossible with cross-hairs that do little more than creep across the screen. Alien domination seems a racing cert. There are five sheets per round (ground attack/space battle/pit-stop/evasion) and naturally the alien swine grow steadily more confident with each wave. Only the awful key response reamins consistent.

Of course if this were a budget release it might still cut some ice, but when compared to other· full-price blastaramas like *Zalaga* (from Aardvark) it pales into insignificance. Potential Space Cadets. must therefore be advised to approach with extreme caution. — **S.K.**

Graphics: K
Playability: K
Addictiveness: K

From: WARLOCK SOFTWARE
Foramt: cassette
Price: £6.99

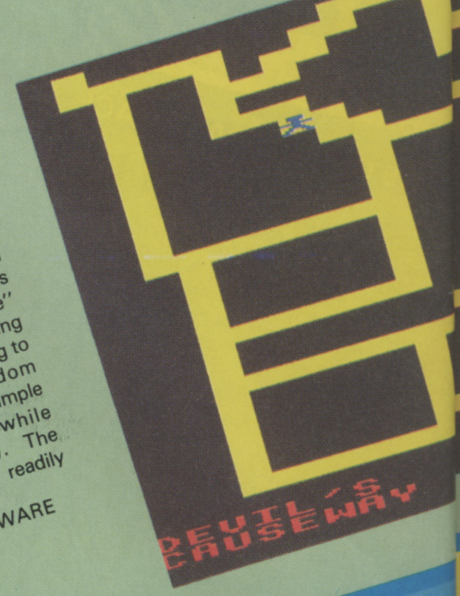


DEVILS CAUSEWAY

BBC B

Hugely inept and grossly misleading educational prog that's notable only for its deceptive cover blurb and the scantily clad winch 'n' demon featured on the pack art. Those loading it in expectation of a fantasy adventure (for that's what it appears to be) will doubtless be well cheesed off when confronted by a simple line graphic and the likes of Donald the Demon Dice Thrower and Simon Summer. It quickly becomes apparent that the "adventure" consists of little more than moving a figure along a line and reacting to a number of naff random challenges. Simon poses simple arithmetical questions while Donald rolls his dice (?). The adjective pathetic springs readily to mind. — **S.K.**

From: WARLOCK SOFTWARE
Format: cassette
Price: £6.99
Graphics: N/A
Playability: Zip
Addictiveness: Zip



MANIC MINER

BBC (conversion)

K K

The classic game starring the miner who resembles Hitler in shorts makes an appearance on the BBC! For those still not familiar with it, the game involves running through vast numbers of rooms collecting keys in order to get into more rooms. The little bugger seems to have travelled well, as have the multitude of lunatic objects set poised to bar his way to wherever it is he is trying to get to.

The notion that the mind behind this spent three months in a spin dryer prior to coding is one worth subscribing to, Penguins, telephones, horned gorillas (to name but a few), all take turns to bring our hero a step closer to the size nine D.M. awaiting him after he has been bitten, battered, stung or generally mangled three times on the trot.

And they do it very smoothly and with great detail. It's nice to see they've chosen the Mode 1 screen display, a pig to animate characters on but twice the detail and worth the effort.

Manic Miner is an unforgiving game on any machine. One step in the wrong direction results in instant death and it takes some time to develop a suitable tactical style. Once you've been totally annihilated for the three million time halfway through the f screen things begin to click you know you're comp enough to reach a few o other umpteen screens. —

Maker: SOFTWARE PROJECTS
Format: cassette
Price: £0.00
Graphics: KKK
Playability: KK
Addictiveness: KK

LEDGEMAN

K

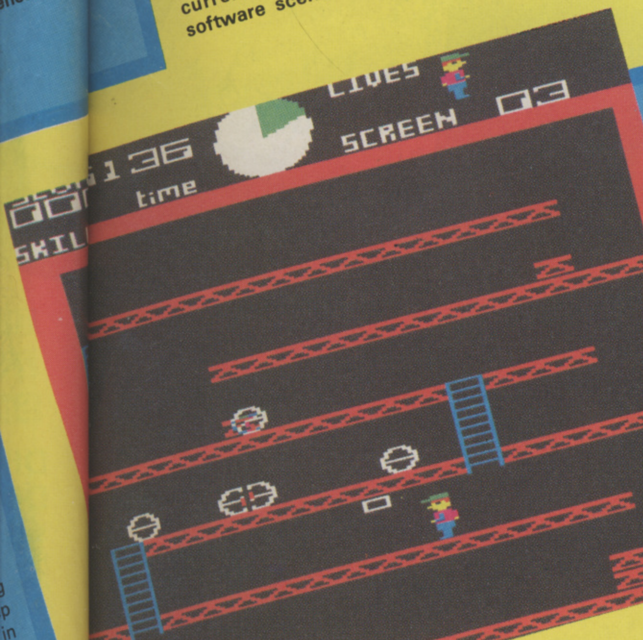
BBC B

Occasionally your humble scribe will awake with a start, hackles bristling and digits trembling because his mind has become cluttered with ladders. It's an alarming occurrence at the best of times. The condition has become affectionately known as 'Miner Madness' and is something of an occupational hazard, understandable when you consider the unstoppable horde of *Miner 2049er* clones currently clogging up the software scene. With barely a fistful of pixels to distinguish between them they've become the stuff of reviewer's nightmares (I fear the day might soon come when I'm asked to look at nothing but climbing games)!

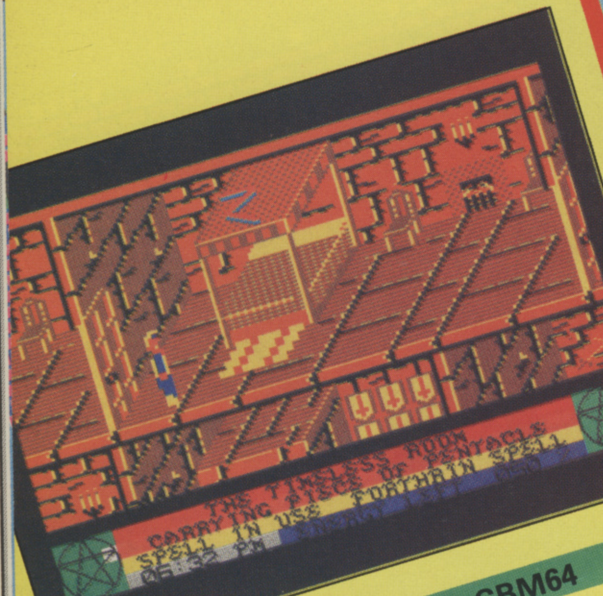
Ledgeman is a typical offering. The title character perambulates about the screen attempting to collect treasures for no other reason than to make it to the next sheet. A baffling array of levels, ladders and lurgies of course exist to thwart him. So much for the plot. Unfortunately the various adversaries and obstacles in this clone are not particularly inventive and thus the addiction level is pretty meagre. You're even given an escape clause that enables you to enter at any level. This effectively removes any incentive that you might have had for playing. By way of compensation the graphics are nice, the animation smooth and the sound FX neat.

The only puzzling aspect of *Ledgeman* is in the title. Why didn't Software Projects just tag it as another Miner Willy adventure? It seems the obvious thing to do. — **S.K.**

From: SOFTWARE PROJECTS
Format: cassette
Price: £7.95
Graphics: K
Playability: K
Addictiveness: K



ELEPHANT NEVER FORGETS
ELEPHANT
MEMORY SYSTEMS



THE STAFF OF KARNATH CBM64

K K

This could be taken as a bad omen for Spectrum owners — the very first Ultimate game for the Commodore 64. Are the enigmatic Players Of The Game testing the waters, on the theory that the Speck is now completely played out? Or are they merely diversifying? In either case, *Staff of Karnath* is an odd move. One might more reasonably have expected a *Sabre Wulf* conversion, cashing in all all that publicity, but what we have here is a completely new game.

Staff of Karnath is constructed along very familiar Ultimate lines. It's a graphic adventure on a Gothic theme, and in many ways resembles *Knight Lore*, the last Spectrum *Sabre Wulf* follow-up. The scenario is a haunted castle full of suits of armour, old weapons, demons and so forth — the usual paraphernalia. As the rather nondescript player figure, your object is to acquire the sixteen sections of a magic pentacle which are hidden all over the castle and usually guarded by vicious beasties. Each section must be taken down to an obelisk in the basement to be deposited, and when all the bits have been placed, you will then be able to locate the afore-mentioned Staff, which must be destroyed by the appropriate spell.

The problem is to do it in time — you have six hours to complete the quest, which seems like plenty until you discover that some of the guardians use up your time if they hit you. Most of them, however, simply use up your energy — bad enough, although it's reset to 100% every time you deposit a pentacle piece. You do have a choice of a number of spells to hold off the baddies, but each spell is specific to a given being — the only way to find out which is trial and error.

I was disappointed. This game is certainly no turkey — I can't imagine Ultimate turning out a real dodo. But comparing it, perhaps unfairly, with their excellent Spectrum output — it simply looks crude. A lot of people decried the monochrome graphics on *Knight Lore*, but I felt that they lent the game a very precise, well-draughted look. CBM graphics always tend to tempt software houses in excess use of colour, and this is what's happened here, I think. The castle, with its great galleries and dungeons is well enough realised, but the player figures lack any real individuality, unlike the shape-changing Sabre-man and the Goblin Guards in *Knight Lore*.

Perhaps more damning is the game's lack of three-dimensionality. The oblique viewpoint resembles that used in *Knight Lore*, but objects just don't have the same depth — you can't walk behind the furniture, sometimes the game registers a collision when in fact you are miles behind the hosltile guard, and you can't move things around — the environment doesn't respond to you much. On top of this, the game lacks a sense of mystery — unlike the Spectrum games, you're told most of the game object before you start. I rather like trying to figure it out.

Still, *Staff of Karnath* is a first, and better than a lot of contemporary CBM stuff — I'd rather play this than most of the over-acclaimed Llamasoft games. But I find Ultimate guilty of raising my expectations, and they just can't be unraised, I'm afraid. — **F.F.**

From: ULTIMATE
Format: cassette
Price: £9.95
Graphics: KK
Addictiveness: KK
Playability: KK

CHESS EXPANDER

K K K

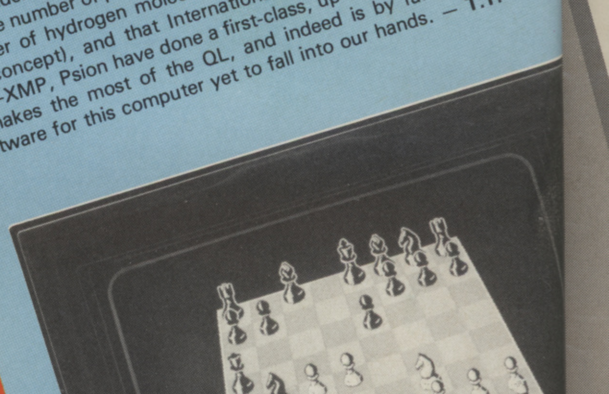
QL CHESS Sinclair QL

A quite superb chess program from Psion for the QL. Psion, of course, are the folks who designed the bundled-in QL software — *Abacus, Quill* and the like — and who should know this strange beast's operating system better than they? The results are magnificently visual: underneath that naff keyboard lurks mighty potential for colour and hi-res, as well as high memory and real computing power. Nowhere are these qualities more in demand than in computerisations of the Oldest Game in the World, and nowhere — yet — have I seen a better job done.

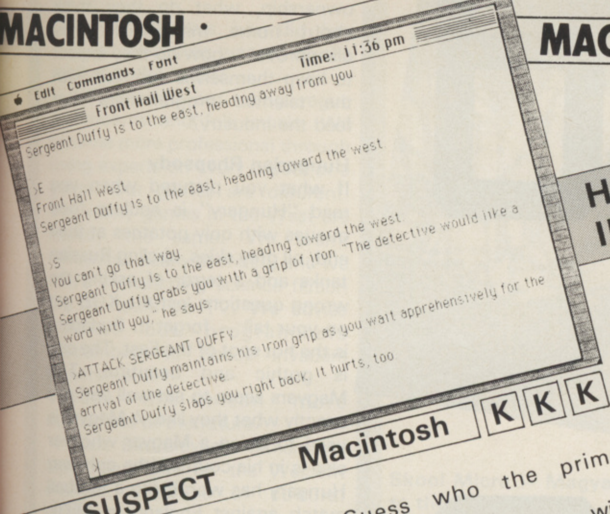
You get two views: a conventional look-down on the chessboard, and a magnificent 3D three-quarter perspective, in which animation of the pieces is slick and smooth — the QL's lack of hardware sprites isn't disastrous, it seems, when you can simulate sprites using memory. There are 28 levels of play (I'm still on the easiest and still getting trashed, but then I never was that much of a chess-player), and the QL's five function keys have been designated for Help, switching between views, and so on. You can play the computer, or against a friend (though here I'd rather use a non-volatile chessboard — i.e. one made of wood). I presume the computer's progressive handicapping is achieved by gradually restricting its time-to-computer and/or look-ahead parameters.

Moving the pieces is done by a sensible designation of the cursor keys; illegal moves are not enterable. If you're a real fanatic (and not too worried about your ego) you can get Hints, Command Takeback (i.e. Undo the machine's last move). Finally, if you just want to watch, the beast will lay on an exhibition match.

Considering that chess remains the ultimate game (someone once told that the number of possible moves in a game of chess corresponds to the number of hydrogen molecules in the Known Universe, or some such Gigaconcept), and that International Grand Masters can still beat th Cray-XMP, Psion have done a first-class, up-market job on their versio It makes the most of the QL, and indeed is by far the best piece software for this computer yet to fall into our hands. — **T.T.**



From: PSION/SINCLAIR
Format: Microdrive cartridge
Price: £19.95
Graphics: KKK
Playability: KKK
Addictiveness: KK



```
Sergeant Duffy is to the east, heading away from you

>E
Front Hall West
Sergeant Duffy is to the east, heading toward the west

>S
You can't go that way
Sergeant Duffy is to the east, heading toward the west
Sergeant Duffy grabs you with a grip of iron "The detective would like a
word with you," he says

>ATTACK SERGEANT DUFFY
Sergeant Duffy maintains his iron grip as you wait apprehensively for the
arrival of the detective
Sergeant Duffy slaps you right back. It hurts, too

>
```

HACK PRIME SUSPECT IN SOCIETY SLAYING

SUSPECT Macintosh KKK

They have toffs in America, it seems, not a lot different in essence from our own high-living herberts but usually with that extra billion lying around to make life that little bit more undemanding. Their parties tend to be on a grand scale, too, with hundreds of guests in unpleasant tuxedos talking about racehorses and real estate while slurping down the clam chowder and the Dom Perignon. On special occasions, such as Hallowe'en, these bashes are extra big, and people come in fancy dress. You — a local journalist — are of course invited, and — dork that you are — attend: dressed as a cowboy, if you please.

The hostess is Veronica Ashcroft, a petulant and conservative New England matron. One hour after you arrive at the Ashcroft mansion for the shindig, Veronica is found strangled in the estate office — with your lariat round her neck.

Guess who the prime suspect is?

For those unfamiliar with Infocom's peerless and definitive all-text adventure technique, this is as good an introduction as any I can think of. Written by Dave Lebling, who also co-authored the immortal *Zork* series (including the original mainframe prototype), *Suspect* is a top-class Whodunit adventure with one fiendish twist. Whodunit? *Youdunit!* Or rather, you didn't; but even when you know what's coming, as you do after a few plays, try and stop it happening and you'll find yourself quite powerless. Your only chance of avoiding eventual arrest at the hands of the Feds (Det. Duffy) is to use every minute of the available time to case the joint, suss out the clues, interview as many of the real suspects (a large supporting cast, all with amazingly authentic "independent" life) as possible, and having done all this — there are many routes to success, apparently — accuse the right person(s) at the right moment with all the evidence to back up your desperate claims.

It's no picnic; and no, I haven't done it yet.

Trying to sum up Infocom is rather pointless. They're simply the best. Let loose on a large-memory machine like the Mac they're in their element. In fact the game occupies about 133K of a 400K disc, and the drive is constantly at work, assessing new information as you type (you never have to wait more than a second or two, so I presume Infocom may have re-written the operating system). At all events, all this memory and disc space means that Infocom's comprehensive text entry sentence parser can come into its own. Input like GET DRINK FROM BARTENDER. GO TO FIREPLACE THEN WAIT FOR FIVE MINUTES or COLONEL, TELL ME ABOUT (whoever) are merely typical. All this is of incalculable value in building the "feel" of the game. You really do — we've all heard this one but for once it's true — feel that you're inside the story, taking part, and when the horny hand of Detective Duffy lands on your shoulder you JUMP!

As usual the game comes inside some classy and cheerful packaging. Infocom's sense of over-the-top-dom exactly matches the Mac's own (you get a standard Mac workspace, by the way, which means you can change typeface, size, layout, etc., if it pleases you). Hidden everywhere — the game, the packing — are clues; ignore them at your peril. If you've got an Imagewriter you can command constant printed output, by the way; not an exclusive option but a valuable one.

Keaton was right, in my view. In adventuring, nothing compares with text, when it's well done. And this is the best. — **T.T.**

From: INFOCOM
Format: Disc
Price: £43.15
Graphics: n/a
Playability: KKK
Addictiveness: KKK

THE HITCHHIKER'S GUIDE TO THE GALAXY Macintosh

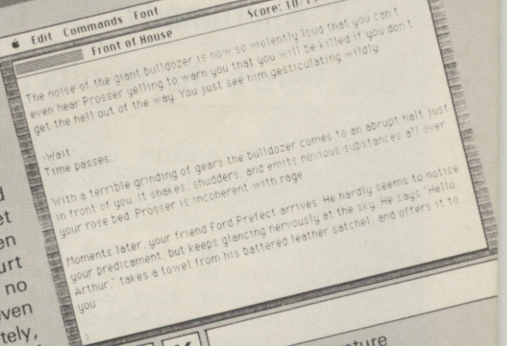
Jumping Jupiter! Brain the size of a planet (I mutter quietly to myself) and they want me to review another naff text adventure. Frontal lobes fried by the after-affects of too many Pan-galactic Gargleblasters, I attempt to insert the cute little 3½" floppy. Nine attempts later, I discover that the cute little 3½" floppy is actually a postcard from Bognor. Finally locating the required artefact, I do the necessary, and suddenly I'm this Dent guy with — guess what — a hangover. Why stop just when I'm enjoying it.

The Hitchhiker's Guide to the Galaxy is a wholly remarkable game. For one thing even I noticed that it has the words DON'T PANIC inscribed in large friendly letters on the cover. For another it's very very funny.

For the three molluscs on Procyon XIII who haven't encountered one of the many incarnations of the classic (radio, TV, book, etc), the narrative concerns one Arthur Dent, a member of the primitive society inhabiting a ratty little slum planet in the Sol system. Arthur is whisked off into interstellar space through the agency of his friend Ford Prefect, an apparent human who is in fact a megabeing from Betelgeuse in disguise. He thereby escapes the total destruction of his planet to make way for a hyperspace bypass. His subsequent adventures are a hilarious send-up of every SF cliché invented.

The game is even funnier than the book. Apart from the fact that it comes with so many wonderful free gifts, such as a Microscopic Space Fleet for attacking microscopic civilisations with, and a delightful piece of . . . pocket fluff — no details have been missed. None of those curt messages saying 'You're dead', no you can carry right on playing even after snuffing it. Unfortunately, however, even the simplest of messages, such as LOOK gets the response 'You keep out of this, you're dead'. Eventually though, you develop a good firm rigor mortis and can play again. There are gratuitiously silly replies to almost any input you can think of and, as a result, playing the game becomes less a matter of winning that of . . . well, playing the game I suppose.

Best of all, no graphics — just lots and lots of the tightest adventure game prose I've ever seen. HHGTTG deserves a final mention for the best adventure game manual I've ever eaten, sorry, beaten (shouldn't spend so much time hanging around with alien scum). This game really knows there its towel is. — **F.F.**



```
The noise of the giant bulldozer is now so violently loud that you can't
even hear Prosser yelling to warn you that you will be killed if you don't
get the hell out of the way. You just see him gesticulating wildly

>Wait
Time passes.

With a terrible grinding of gears the bulldozer comes to an abrupt halt just
in front of you. It shakes, shudders, and emits noxious substances all over
your rose bed. Prosser is incoherent with rage

Moments later, your friend Ford Prefect arrives. He hardly seems to notice
your predicament, but keeps glancing nervously at the sky. He says "Hello,
Arthur," takes a towel from his battered leather satchel, and offers it to
you

>
```

KKK

From: INFOCOM
Format: disc
Price: £34.50
Other Versions: C64
Graphics: Couldn't find any — would shoot to kill if I did.
Playability: 42
Addictiveness: Pan-galactive
No tea

BEHIND THE CURTAIN

BIG K GOES TO HUNGARY!

"So how come so many games seem to emanate from Hungary these days?", NICKY XIKLUNA asked top Hungarian programming house Andromeda Software. "Come over and see," said Andromeda. So Nicky did and here's the results . . .

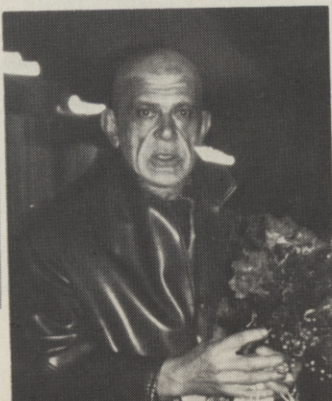
Hungarian yout'. Now he dabbles with computers.

SUNDAY AFTERNOON and BIG K had arrived in Budapest. Making its way from the airport to the city, the little Russian car containing its big software house delegation came to a halt. All civilian cars had done so. Suddenly a mile long crocodile of cars came screaming past like vampire bats — all sirens and lights. It was the escort of a visiting dignitary from a sister socialist state. "Quick!" barked the major domo of the software house (and my "fellow traveller"), as the last official car flew past "*Follow that car!*" Our terrified driver obediently opened throttle and wheelied into action. Thus BIG K arrived in the city. At full speed and in *style.* You see, Hungarians have this knack of getting in on the action . . .

A steppe too far?

BIG K has long wondered what was happening in the East. We'd noticed all those big companies wheeling themselves in for potential new markets as the COCOM regulations showed signs of easing (many of them getting snotty and pretending not to be), whilst COCOM, with McCarthyite zeal, has disallowed exports left, right and centre (especially left) in an effort to slow down the rate at which Socialist countries acquire new technology.

Psst! Wanna buy a micro? Not all Hungary's micros arrive officially.



Economically the West has now given the big YES, and politically the big NO. (No doubt creating problems for people like Alexander Haig, a Director of Commodore who also happens to be a former Secretary for US Defence).

Although eastern computer technology is generally believed to be about five years behind, one thing has been getting clearer, Hungary is rapidly emerging as a software market leader. The company that exhibited 13 new titles at the PCW show, that created *Eureka, Chinese Juggler, Falcon Patrol, Interview, Bird Mother, Traffic,* to name but a few, can't be that far back in the dark ages. But who actually does the programming? In a state that isn't too keyed up about private ownership, what do they think about home micros? If they disapprove — how do they expect to keep themselves supplied with the talented programmers that feed the industry?

Hungarian Rhapsody

If what you pictured when you read "Hungary" is endless food queues with only potatoes at their end, oil grey skies, circling Russian tanks and a terror of asking the wrong questions lest the KGB get on your tail — forget it. Budapest is the hot spot of the East. The city is gothic and beautiful. The Magyars seem to eat well and say exactly what they like. A Magyar is used to being a Magyar whoever else is in his country (the only war Hungary has won being a football match against England in 1953). During my stay I saw plenty of evidence of American commerce — and not one Russian.

Andromeda is a software company that provides marketing and direction for Magyarware. The production company back home is called Novatrade. And it's much more than a little down-town Budapest software company — the personalities involved in the two companies have been instrumental in boosting the Hungarian zeitgeist.

The irrepressibly ebullient Robert Stein came hurtling out of Hungary in 1956 to London, and started Vulcan Electronics. ("I should stop having ideas? Then I'm dead!"). His first venture into electronic games was an early hand-held game called XL25. "As I became involved in the games market, I thought I may as well use programmers back home." Robert pushed for the setup of an Innovation fund (composed of state, bank and private investment) to pump money and expertise into selected viable bits of Hungarian inspiration. There were some dramatically successful ideas, (Mr Rubik and his cube) and some pretty shaky ones too (like the sugared tomato skins I sampled). Novatrade started here — a "backwater" electronic cottage industry, that quickly put down roots, now stretching as far as an office in Palo Alto, Silicon Valley.

MEET THE PROGRAMMERS

In down-town Buda is a mammoth white maze the size of Top Shop at Oxford Circus. This is the fresh-painted nexus of Novatrade's operations — the Studio. Novatrade kicked off with a nationwide competition for the best storyboards. It still receives 10-12 a week. Foreign companies arrive in Hungary either with their own storyboards (like Domark), or to choose a title from various in-house works in progress (Mirrorsoft). Either way, the Studio then takes over.

Kiss Donat is Novatrade's chief programmer and also presents a TV series being filmed for 1985 —

"BASIC".

As programmers, how did they find out what was wanted on the market in the West?

"We started out using vague storyboards and folk music. We became more professional through using experts on every aspect of a game. Our games are different. Too many games in the West are exactly the same. We aren't influenced nearly as much, and we don't sit watching science fiction for 24 hours on TV. We advise against our programmers succumbing to Space Invaders Syndrome."

Does this mean more adventures in the future?

"Yes. But they are difficult to storyboard here for the Western market, because of cultural differences."

And the future?

"We want to do more for MSX, and we want to create megagames. But that's a problem because they require such massive investment and Novatrade is only just breaking even."

At the beginning, Novatrade contracted moonlighting programmers. They now have a caucus of 10 or so full-timers, supplemented with a pool of freelancers. All are young graduates (25% girls) of proven enthusiasm and talent. I asked Zoltan Horvat and Katalin Matsa (who worked on *Eureka*) what they enjoy best.

Programmers; Zoltan and Katalin. "We slept in the office for two weeks to finish Eureka."

"We like adventures. We don't like war games like *Fighter Pilot*, as there are so many. And we want to become good enough to produce the very best games."

Programmers obtain a percentage of royalties on top of their basic wage. Each small group concentrates on a different machine. They've developed a median language to synchronise between Commodore and Spectrum. "But it's not easy, as our TV system is different. We've got a system composed of both PAL (like Britain) and SECAM (like Russia and France)."

Do they work hard? "We have flexible hours — which means we work all the time! During *Eureka* we worked literally day and night. We took turns at sleeping in one armchair. Friends and relatives brought in cooked food."

Skool Micro — Magyar answer to the Beeb.

Domark informed Novatrade that they'd forfeit an amazing £666 pounds for every single day that the mega 100-screen *Eureka* passed its deadline. They got it on the button. I asked whether they rewarded themselves by secretly poking their names into progs. I met with blank stares of non-comprehension. Does such devotion mean that Novatrade are running a sweatshop?

"Sort of. But theyre fanatics. They do it because they enjoy it and for a connection with the outside world."

Guesting a Magyar disco and concert (KFT Band — meaning Public Limited Company) I noticed a group of people getting their heads down lower than most. Further investigation revealed that the subject was a Commodore 64, showing Digital Integration's *Fighter Pilot*.

Previously Exported

"I'd learn everything I could if I had a computer" said 18-year-old Stefan. "But even if I could afford one — there's no software here." By the next day he was wrong. Budapest's only software shop decided to sell games previously exported, alongside the range of business shelfware. Of course this is only the beginning. Nevertheless, Hungary could be poised on the edge of becoming the first Eastern European market for home computers.

A representative at the Hungarian Embassy in London told me that there were at most 30,000 micros in the country (3,000 official, the rest brought in through "friends"). "We only have a few machines in special maths schools. We don't computer educate until a post graduate level and there is no particular enthusiasm amongst young people," he said. He was wrong.

Sources inside the country put the number of micros at 50,000. The cost has been prohibitive (£400 from a £100 per month average wage), but has just plummeted as tax has been reduced by 25%. The day before I arrived, the airport was jammed solid for four hours with computer-clutching Magyars. Hungary is Commodore land (Andromeda hold the exclusive importation) with a sprinkling of Spectrums.

Skool

Contrary to the testimony of our official, in fact 1982 saw a campaign to inaugurate computers into secondary schools. This will be extended to primary schools from 1985. Schools are mostly supplied with Hungarian-made machines (with Swedish and Russian components), despite the fact that they cost twice as much as Spectrums. The earliest ones arrived in kit form, and were assembled in summer camps. (How's that for enthusiasm?) They have Videogenic and ABC machines based on the TRS80. The early machines were notoriously unstable. One school teacher told me that it was "impossible to run a tape from one machine to another." Later machines have overcome this problem, although there is inadequate provision for peripherals, and a dearth of disc drives. Some schools have Spectrums too. I got the impression that a healthy amount of piracy goes on in schools, as I heard one professional programmer complain that his son had brought home a copy of a new (Western) game before his company had supplied him with an official copy! Use of computers is so popular that the learning of BASIC is laid on as an extra privilege.

Pepita
Stereo-mon
Rajta van a ki
AFRIKA
Bál az Operában
kft

KFT Band's record sleeve. Proof that the Spectrum lives behind the iron curtain.

Necessity is the mother of invention . . .

. . . is a theme rife in Hungary. The race that invented colour TV, the long-playing record, and holography — amongst other contributions to world culture — is jumping into the computer age. "We are a nation of mad inventors" says Robert Stein.

Novatrade does not only manufacture software for the West. It also develops the brainchildren of all manner of talented techno-boffins. A few of them have been laid out for your perusal here. *Andromeda,* apart from being a galaxy, meanwhile, means "a genus of shrubs native to Britain and N. America." But you never can tell where a burning bush might appear.

CAESAR THE CAT

In a dank cellar in an ancient quarter of Budapest, something strange is stirring.

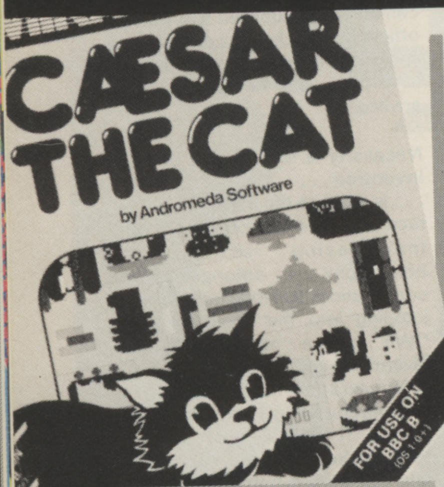
It is called private enterprise.

Caesar has been stirring it for three years — ever since Hungarian law allowed the growth of small businesses.

Caesar is the brains behind his namesake *Caesar the Cat* (Mirrorsoft), and Domark's *Eureka* (with Kiss Donat). Pictured with him is a preliminary screen from his work in progress — an as yet untitled Star Wars style adventure.

"So many games have beautiful packaging" says a whimsical Caesar "but the games are so often disappointing." He aims to

BEHIND THE CURTAIN



Ceaser — Cool Cat.

emulate the best of science fiction fine-art in hi-res moving backgrounds.

"What I'm dreaming of is a real-time adventure in which I can play my part as if in a movie. I'm creating a roving telescope which will enlarge sections to search for clues. I also want a star map — and 100 different moving screens." Caesar is making use of speech synthesisers too.

"I want all of my ships to have a voice!"

Caesar is intense and idealistic, has a reputation for being moody. He's put every game situation he knows about into this newest epic. He spends a long time explaining how this moon will scroll this way and that planet the other whilst a 3D pink planet pock-marked with craters boils under the craft. If he can pack all the screens I saw into the finished game — the folks back home will be very happy . . .

The next big hurdle for the *meisterwerk* is getting it into the CBM's memory. Each screen has to be compressed from 10K into 2K. Caesar writes on the Commodore, etching preliminary screens on a Koalapad. He has developed his own method of programming which will translate easily to other machines. "I'd rather write on a mainframe and download — but the cost is to great for Mikromatix. "A very small company," he adds ruefully.

Unlike Novatrade which has state support, Caesar is one of the first Hungarians to stick his neck out as an entrpreneur. He is anxious about being so distant from the market in which he competes. "You don't see this kind of thing anywhere else here," says Robert Stein, Andromeda MD.

Mikromatix consists of a hard core who recruit professionals according to the job in hand. "We work in a closed area — it's not like the criss-crossed environment of the West." Handling a group of experts for one job can be a tricky business. "Without a good atmosphere — the whole team will collapse. It is best to finish a project quickly. That way everyone sees the fruits of their labour and is happy.

"At the beginning — we knew that everything we did had already been done in the West. The aim of *Eureka* was to bridge the gap — to depart from the usual arcade style game and to master the adventure. Hopefully we've crossed the border and are neck-and-neck with Western programmers."

Before he started Mikromatix, Caesar was an employee in a large engineering firm. "I had many ideas but didn't know how to implement them." Then Novatrade put out a request for storyboards. Caesar sent seven. *Ghost Hunt* was accepted as a leading title. Novatrade informed Caesar that a professional programmer was about to transform Caesar's ideas into a real game. Caesar stormed into Novatrade's office on Sandor Street. "No one makes my games but me," said Caesar, and walked out with a CBM under his arm. Three weeks later, Novatrade had the finished game. It was the first time Caesar had ever clapped eyes on the machine.

Ghost Hunt sold in Germany, and Caesar went on to write *Coleco Soccer*, which bombed along with Colecos' UK operations.

"Caesar is brilliant," says Renyi Gabor of Novatrade "he's lucky to have the opportunity to realise his talent."

Providing someone buys Caesar's work in progress — we should see it sometime this summer. Meanwhile his thoughts are turning to the next game. "I'm dreaming of an oriental fairy tale using flying carpets and lots of magic," says Caesar, lost in space as usual. Hail Caesar. We who are about to play . . .

MAGYARS, MICROS AND MUSIC

ANDRAIS SZALAY is a talented technocrat who can turn his nimble digits to almost anything. Trained as musician, physicist and electrical engineer, he switched from soldering iron to keyboard three years ago. "My big regret is that I wasn't born three years later. I wouldn't have wasted time fiddling around with electronics — I'd have grown up with computers."

Fiddling has led Andrais to great things. He has teamed up with Hungary's most popular band. Andrais spent a year developing an audio processor, based on the ZX81 with 64K expansion. "The Simulator" has all the capabilities of a Fairlight bar stereophonic sound. But at one hundredth of the price — who's complaining?

Any sound can be recorded through the microphone into the 81's memory and reproduced in any pitch via the synthesiser keyboard. Andrais has a still-expanding range of software that includes a drum machine, composer and dual transposer. You can arrange and orchestrate song or symphony and then print it in perfect musical score. Or devise arcane tunings for a rainy day and save the whole onto tape (eg blues piano).

Booting up a disc drive proved problematic, but there's a fast loader which takes less than two minutes. The whole gizmo is of studio quality and is already being tried out by pros. MUSIX 81 is quite a coup for the brainwork of just one man — especially as it undercuts everyhing on the market.

"The only problem I've had has been importing basic components — like integrated circuits. It takes forever to obtain licences from West Germany."

Meanwhile, Andrais' baby is cutting its teeth in the studio with rock band Omega. Andrais also goes on stage with the band, where the MUSIX 81 holds 50% of the gig on core. Has he ever encountered any problems? "Just once. The only time I didn't bring batteries to back up the power supply — the juice cut off half way through the gig. I kept thousands waiting whilst I reloaded." Ah well, the harder they come . . .

WELL HUNGARIAN

Janos Cobor and Tamas Mihaly are members of the band Omega, Hungarian equivalent to The Stones — Omega's popularity peaked in 1965, when they become the *bête-noir* of Eastern European parents. 20 years on — it's now the parents who pack the venues — which cover Austria, Switzerland and Germany.

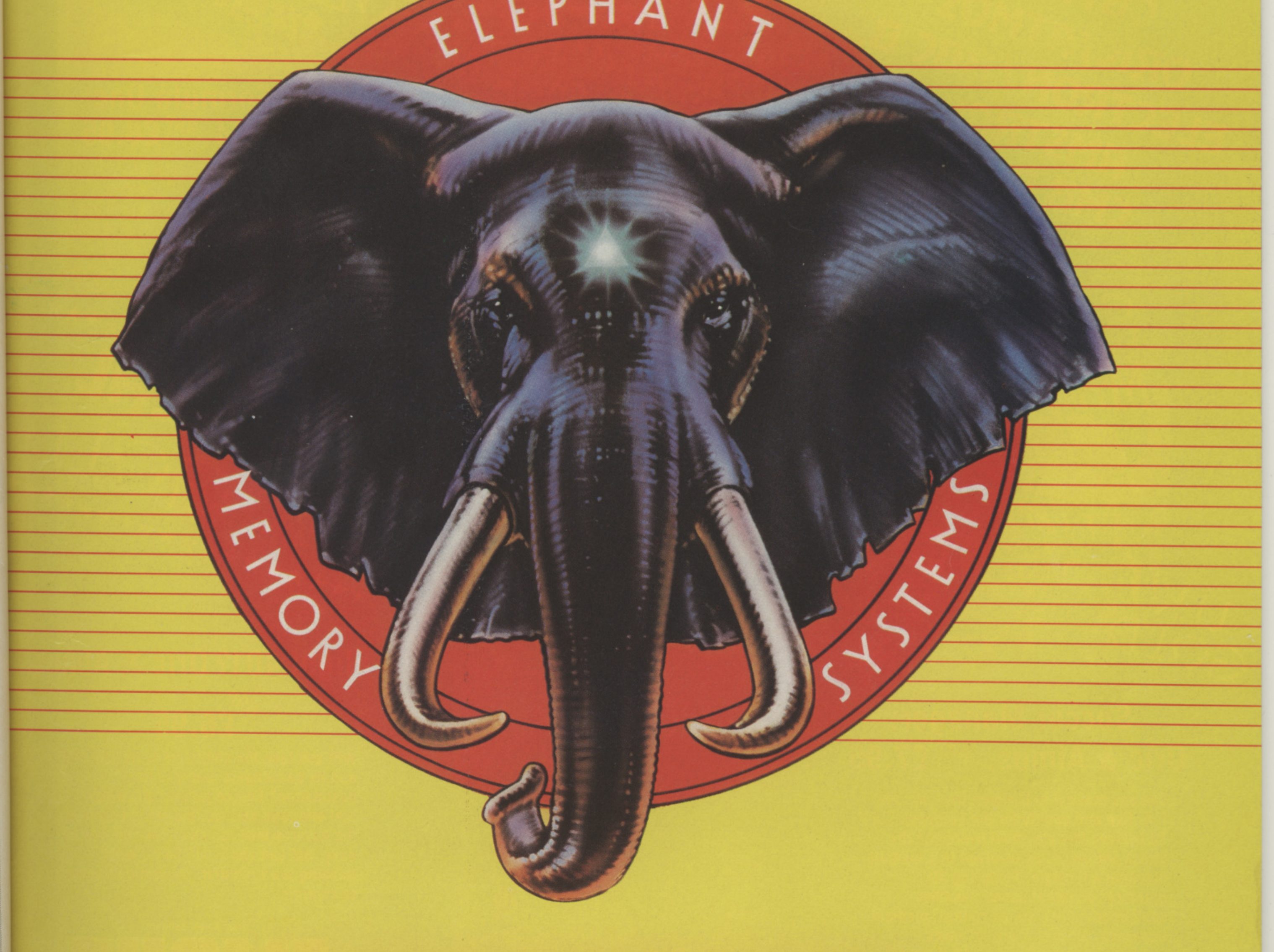
"We never thought much of punk" says Tamas. Omega have veered towards electronic music, and have incorporated Andrais' ZX81 based wonder widget into the line-up. "The Simulator allows us to make acoustic sounds through a machine.

"We like this."

Omega Band — bigsters in Europe.

BIG K sends fraternal thanks to Robert Stein, Renyi Gabor, Kiss Donat and all who helped make this feature possible.

REMEMBER



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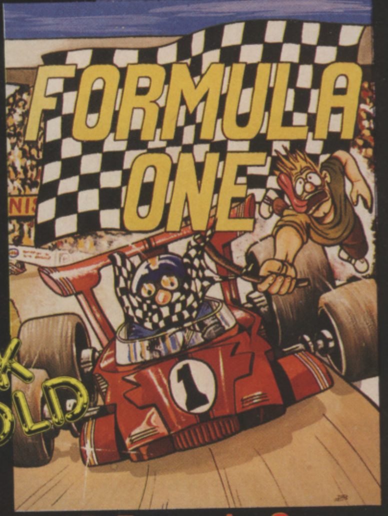

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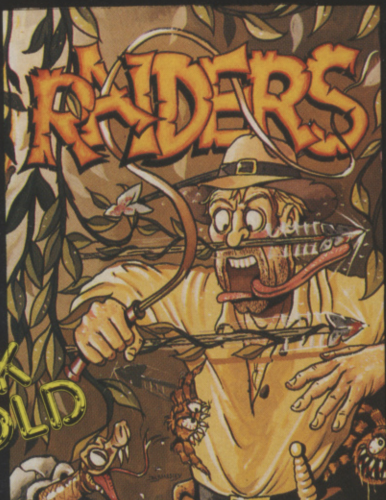

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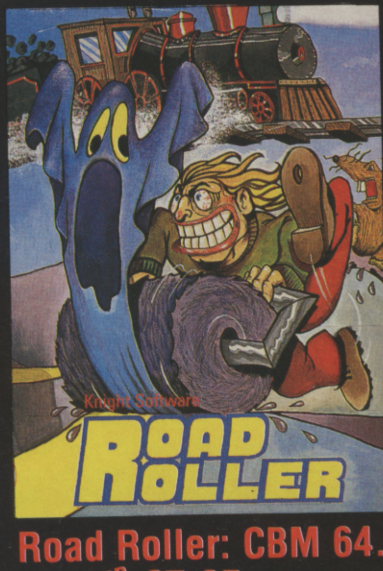

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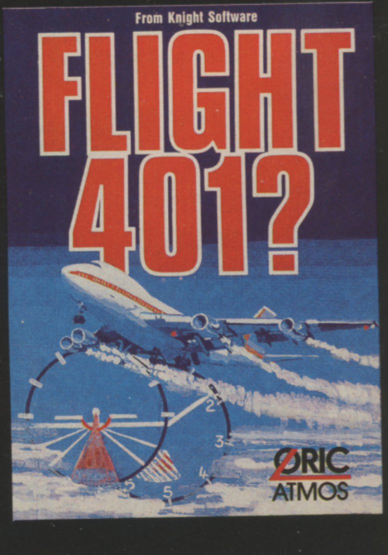

UK GOLD available soon on most popular home computers other than ones stated including Amstrad, CBM Plus 4, CBM 64 and Enterprise.

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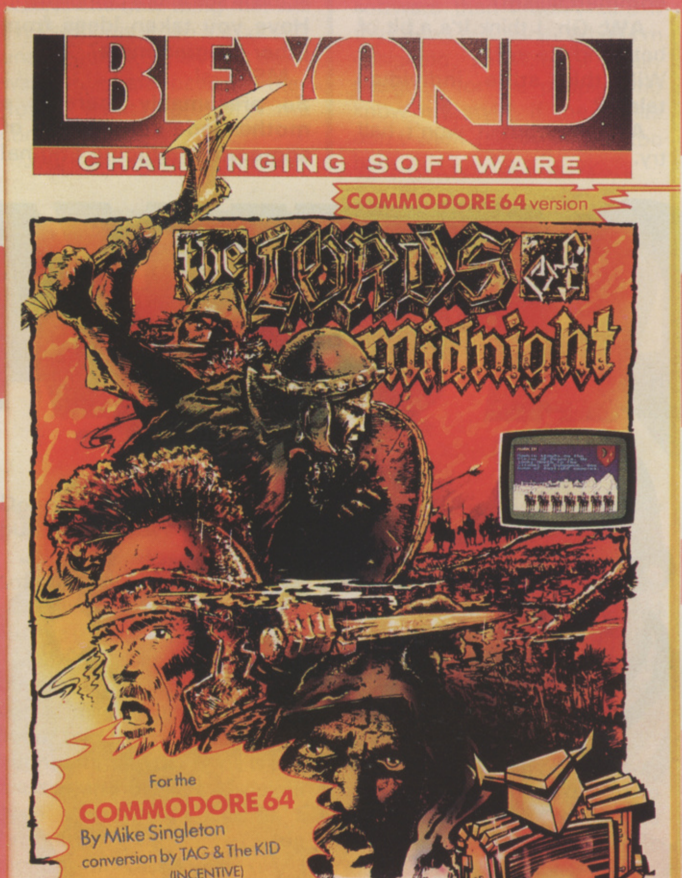

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"Who" (we asked ourselves) "knows more about games, game-writing and computers than anybody else in the Known Universe". "Easy" (we told ourselves), "the guys who write the hits. In person. All at once," So we sent for TONY TAKOUSHI, he got on the case, and on a day in December Four of the Best came south, to BIG K. Without further ado, therefore, we present . . .

SOFTWARE

Firstly, how do you see the software scene developing over the coming year? This year we've had smooth-scroll, shoot-em-up and *Decathlon* syndromes. Do you see these continuing or a new breed of game emerging?

Mathew Smith: I think we're going to reach saturation point late next year, although there are still going to be new game styles.

Do you think the industry is going to collapse?

Andy Walker: The industry is going towards people with a lot of financial backing. You can wish that as an "artist" you can write games and reach your public, but it's not like that anymore.

Professionalism or plain commercialism?

AW: Oh, I think it's a bit of both and it's evil.

Will this stifle individual talent?

AW: No, but it won't half try.

Do you think entertainment software will continue to be called "games"? Indeed, is "games" any longer an accurate word to define what you're all producing?

MS: There are games which are simulations and games which are problems. *Monopoly* is a simulation and yet it can still be called a game.

Everybody here has been setting styles — and you're leaders in your field — does this adulation cause you problems?

MS: I'm not bothered by it because it doesn't bother me. I've found that I'm expected to have opinions on topics that I haven't really considered. I'm just a programmer who has ideas. I'm not bothered by people copying my ideas. I actually see it as a compliment.

Have you taken ideas from other programmers?

MS: Yes!

So presumably there is a mother lode somewhere of someone producing original ideas?

AW: I honestly don't think you can say that. It's like trying to say who invented the greatest song. Everybody might know the notes but they use them differently.

Tony Crowther: I know a lot of people who would call *Manic Miner* a copy of *Miner 2049'er*. But how do you know the guy who wrote that didn't get his ideas from someone else?

MS: I *did* get inspiration from *Miner 2049'er!*

Tony, how did you visualise Loco as a game? Was it to be an original concept?

TC: No, *Loco* was a copy of an arcade gme I saw in Spain. One of my other games, *Suicide Express,* was meant to be a revamped version of *Loco*.

MS: We don't really know enough about the machines and what can be done to plan the games out.

Do you think the popular micros — Spectrum/64/BBC

SUPERSTARS

TONY CROWTHER: wrote *Potty Pigeon, Son of Blagger, Suicide Express* and *Loco*. Now runs own company, Wizard Developments. Famous for Smooth Scrolling.

MATTHEW SMITH: wrote *Manic Miner* and Big K's Game of the Year, *Jet Set Willy*. Writes on a Tandy business micro. Co-director of Software Projects.

JEFF MINTER: famous above all for camel/llama/sheepseries of blasters, also for Pink Floyd/CND affinities. Self-confessed purist. Owns Llamasoft.

ANDY WALKER: Team leader at Task Set (*Jammin', CadCam Warrior* and *Seaside Special*). At 92, marginally older than the others.

— have reached the limit of their development?

MS: Yes! People are finding technical limits, especially on the Spectrum; although the 64 has more potential left unused.

AW: It's getting to sound like technical ability is the be-all and end-all. At the end of the day a good game is . . . a good game.

Have you found that the kind of pressure you get from the public and computer press — to add more screens and complex graphics-play — is one you feel and respond to?

TC: I motivate myself, and to a large degree it depends on the type of game released as to its form and complexity.

What do you see as the most important part of your games? Do you think about how it will look or how it will feel?

MS: A mix of both.

Three of you work as individuals but you, Andy, work completely differently. As part of a team.

AW: All I ever really wanted to do was write code, but never got the time to write any complete item myself. Taskset games are team efforts; someone can do the graphics while someone else can do the sound, and so on. The team leader happens to be me; there's no one guy who has all the ideas, so whoever's talking good ideas at the time has the floor to further develop it with contributions from the others.

Would you say that generally the young programmer is treated well by software companies?

MS: Usually he's not treated well because everybody wants to get as much as possible out of him.

What about piracy?

Jeff Minter: Kidds copying doesn't do me any harm at all. It's the commercial pirates who are doing the real damage.

TC: There isn't one person here who hasn't pirated software — I do it and I don't believe software houses suffer because of it.

AW: Is the fact that *Jet Set Willy* has been copied in a school playground a bad thing? Copying and word-of-mouth can do as much good as damage.

Is there anything that will stop piracy?

AW: The only thing that will ever stop it is when it's socially unacceptable, when kids don't want to pirate because they don't want to hurt the company.

JM: I hate commercialism.

Do you think of yourself as a purist, Jeff?

JM: I'm very purist. I design software and I don't like the commercial side.

But you bank the money!

JM: Yes, but I wouldn't be human if I didn't do that. I don't mind if people hear about my games from reviews but not from hype. Hype is just masses and masses of colour page ads saying "This is a fantastic game", or big pictures of cassette boxes. I hate it all!

MS: If cassette boxes help sell, then, OK.

JM: I don't sell cassette boxes, I sell concepts. I deplore combative ads — those that say "this is the best game ever", or "It surpasses such-and-such". They are the absolute pits. Anybody doing that deserves to be shot with BIG bullets. Charts are to be ignored and despised. Whether you're top or bottom doesn't mean a thing.

AW: The problem with charts is that it's very, very easy for people who don't know what they're buying to buy the top 20.

JM: That's their loss — not mine!

AW: That is *your* loss!

JM: Well, it is my loss indirectly — but if people are that stupid about buying software then I don't care if they don't buy mine. When I'm designing software I really design it for the people who know my style; if the others don't want to buy it then too bad.

AW: There are plenty of new computer owners out there, and the new owners from the Christmas period who have never bought a game before. So what do they do? They go into Boots. And what do Boots buy? The charts. There's lots of good software that never charts.

JM: The thing is, if they ever get deeply enough into computers then they'll get to know who's good and who's bad anyway.

MS: They won't find out themselves, they'll find out basically by listening to other people and checking charts.

JM: If somebody takes notice of charts then they're probably not suitable to play my games.

AW: I think you're a little too sharp. They would enjoy your games given the chance, and that's a shame. That's people you ought to reach.

JM: What do I do? I'm not going to pay £5000 to get it in the charts or whatever. The distributors look, they say, "Oh well, you've got eight full page adverts in this magazine. Right, so we'll buy that instead of buying somebody else's games."

AW: For example, Boots now will say, "Are we going to take your new game or not? Well, what's your ad spend for this game?"

JM: That's it. That's all they care about.

TC: They're doing that with us.

JM: I hate distributors. They're evil, EVIL!

AW: Their days are numbered, because for the first time ever everybody is coming to feel the same — they're evil — and we're not the only businesses to suffer. Distributors are now deciding what will sell. If it's not on their shelves it doesn't stand a chance.

MS: Well, with retrospect, distributors should be taking over that part.

AW: It's not right, though, is it?

MS: It's right for the people using them.

JM: Is it right to book nine full-page adverts?

MS: Distributors are shifting people around to their own advantage.

In what way?

MS: They're only interested in their own profits and the product they're selling. So there's an awful lot of really bad programs on sale.

So what's the answer?

(Ironic laughter)

MS: The way it worked for years was that the

CONTINUED OVER PAGE

CONTINUED FROM PAGE 35

programmers duplicated and sold direct to the public.

That's when it was fun and nobody got screwed.

Let's diversify a little and discuss the new micros and see how you view them. What about MSX? Matthew?

MS: It would have been great five years ago.

Is there any substance to the theory that MSX1 is not *intended* to succeed and they're trying to soften us up for MSX2?

MS: It's a poor attempt to muscle in on the market. I can't see it failing miserably because they must have already sold enough now to justify its development costs — which were practically nil.

AW: I don't think they've sold enough to justify its existence. They came along in the summer with huge great muscle and were planning to take ten per cent of the UK market by Christmas.

(Murmurs of 'No way')

AW: I don't believe it's a grand scheme for MSX2. People who subscribe to that honestly believe MSX will fail, and this age-old belief that the Japanese cannot fail is false. They have failed in the UK, and are doing it again.

OVERPRICED MSX

TC: I think it's like videos. The video came out and loads of companies went to develop it and they got themselves a name — and that's what they're trying to do with computers.

JM: Basically MSX is overpriced. It's quite a flexible system but it's not up to today's standard, really. If it was down to £150 it would be a good entry level system. The price is not realistic.

How many people here are planning to target MSX? And, if so, are you doing it defensively or in the firm belief it will succeed?

MS: Yes we at Software Projects are releasing for MSX, but they will be conversions. We don't have plans to release new titles for the system.

Do you think there's any future in MSX2, which is said to be a 68000 chip and 128K basic RAM?

MS: There has to be an MSX2, but I don't really see which direction Microsoft will go when it comes down to the O/S.

AW: Why shouldn't it be that they plain just got it WRONG?

We have heard that MSX machines are not as compatible as they are said to be.

TC: It's the extra facilities on each company's micro that are causing the problems. If you write software that uses these extras it won't run.

THE VENUE: BIG K editorial Romp Room: after initial objections to Minter's Afghan coat, the meeting comes to order.

MS: I don't like the machine at all and I can't stand the Spectrum!

As you have written two best seller Spectrum games was it a major effort to do so?

MS: Not really. Although the second one was written to be purely a "Best Selling Game"!

JM: A horrible attitude!

Did you consciously force yourself to learn Z80 code?

MS: No, I was very fond of the Spectrum to begin with because it was similar to my eight-year-old machine with some form of colour, graphics and sound.

How about other new micros? The QL, for example?

MS: It's a nice machine and there's no other way you could have a machine with two drives, so in that respect the QL is solid.

Do you think it will sell, though?

MS: No, it's too late.

TC: I've never seen one!

JM: Don't worry about it. The QL was a good idea — to have a nice, cheap 16-bit micro; but they cut it down from 16 bit for a start and they gave it relatively poor microdrives. If it had been released at the right time with the right software it would have been OK but it was pushed too early and it didn't deliver enough to carry it to big sales.

Is anyone here planning to write for the QL?

MS: Maybe a conversion, but it's the microdrives that stopped it being popular, and the lack of software.

SMITH:"I dont like MSX at all. I can't stand the Spectrum!". Shock horror.

AW: I believe it's failed already.

Why do you think it's failed!

AW: There just hasn't been the software for it. The Psion software just isn't enough and it doesn't go far enough — it's just not on. It's not a games machine either. Most of the shopowners I've spoken to have had four QL's delivered, three of which have been faulty and one broken down. I haven't spoken to a shop keeper yet who has actually sold one!

MS: It's the software that makes the machine and the QL could have found a place like the BBC.

AW: The BBC is special. It carries the three magic logos.

Is there any way of saving the QL? You all seem to agree that there are bits of the QL worth saving.

AW: I don't think there's anything worth salvaging.

MS: Yes, there is!

If you were Sinclair you'd dump it?

MS: Sinclair could save it.

How?

MS: They've got to have 3½" drives and it's got to have Macintosh-type software.

How about the Enterprise?

MS: I really, really liked that machine when it was announced.

JM: So did I!

MS: And I really liked the Atari at that time — and now, two years later, I *still* really like the Atari!

AW: I was singularly disappointed with the lack of hardware sprites. They went to all the trouble of developing their own video chip and missed off the one most important selling factor. The 64 sold mainly because of its video and SID chips. The Enterprise is too late, its add-ons look remarkably like dustbins. I can't think of anything more awful or hideous — they're like a 1960's architect's nightmare.

The Ronan Point of Computerdom?

AW: Yes! I'm not too sure who's writing for it but I definitely won't be.

TC: I'm the same as Andy.

JM: I would put *Psychedelia* on it because it's got superb colour handling, but for other games I wouldn't bother. It had a potential to be an excellent games machine if it hadn't been for the missing sprites.

MS: Two years ago sprites weren't a big problem.

JM: Two years ago I would have said "Get it", despite the sprites; but it just didn't arrive on time. When I went to the launch at the Hippodrome it just didn't impress me enough to think, "Wow", whereas a year ago I *did* think "Wow".

What are your views on the Amstrad?

MS: I was quite impressed with what I saw. It's the quality of the machine that's its selling power.

TC: It's a new machine and I'm not too sure just how well it will sell, although I do feel it should do well.

JM: I think it's got a lot of Mummy Appeal. Mothers will go into shops, see the package — which includes a monitor so it doesn't take up the TV — good BASIC and all that, so I think it'll get bought for a lot of first-time users by Mummikins or Daddypops.

MINTER, TYLER, CROWTHER and FRIEND greet news of coffee machine going down with astonishment and dismay.

AW: The Amstrad is the only machine to arrive fully completed. The PCB inside is a masterpiece, no bits of wire around. The O/S is well written and its future looks good.

Which of you have or will be writing for it?

MS: We have.

JM: I will be doing some conversions for it but nothing original.

What's the view of the Commodore 16?

JM: Again, I'll convert a couple of games for it. I do like the colours and I may do some colour-based games. It really is a good entry level package.

MS: I wouldn't touch it with a barge pole!

Why?

MS: Because Commodore want me to, and I don't want them to do it again, they've done it two times already with VICs and 64's.

WALKER. "The Amstrad is the only fully completed machine. The PCB inside is a masterpiece."

AW: I haven't really given it much thought. I'll wait and see how it develops.

TC: I like the machine even though there's no sprites. It's got the smooth-scroll and colours.

How about the Plus Four?

JM: It's nicer because you can simulate sprites with the extra memory. It's like programming a 64 — you go to the register map and it's just the same, even though it's not as flexible with sound and sprites. I won't aim particularly for the Plus Four because it's not an interrupt-driven machine and it's getting a bit upmarket.

MS: I don't know that much about it.

AW: It looks reasonable but I'm not convinced it will succeed yet, even though it may be selling well. I cannot believe that somebody at Commodore said, "Let's ditch the SID and VIC chips and produce a new machine". The sprites and sound are the two biggest selling points of micros today.

Now for one of the hottest micros around — the Macintosh!

JM: I love the Macintosh because it's so nice to use. My only criticisms are that it doesn't have enough memory and only one disc drive. If enough are sold then I'd love to do something on it.

MS: I don't think it can be classed as a home computer because of the way it's presented.

AW: Taskset doesn't have any plans to release software for the Mac, although it's a thoroughly reliable machine. But it may be desirable because of the screen display. I've not actually used one so I can't really say anything about its facility for games. The screen display we'll be seeing on other machines this year — you will see that breed of hi-res pull-down menus on assorted other machines. It's bound to happen because its so nice. The single drive is the only point against it. It's a single-drive, small-module machine; any real system needs more than one drive. If a competitor arrives with a similar machine with more backup then Apple could have the carpet taken from underneath them.

TC: I haven't seen the machine but from what I've heard it's the machine of the future. I'm not planning to get one so it's pretty much up in the air.

MS: I believe it's a compromise on what they wanted to do with the Lisa.

Do you see a time when 16-bit games will be selling for £100?

JM: £100 for a game? You've got to be crazy?

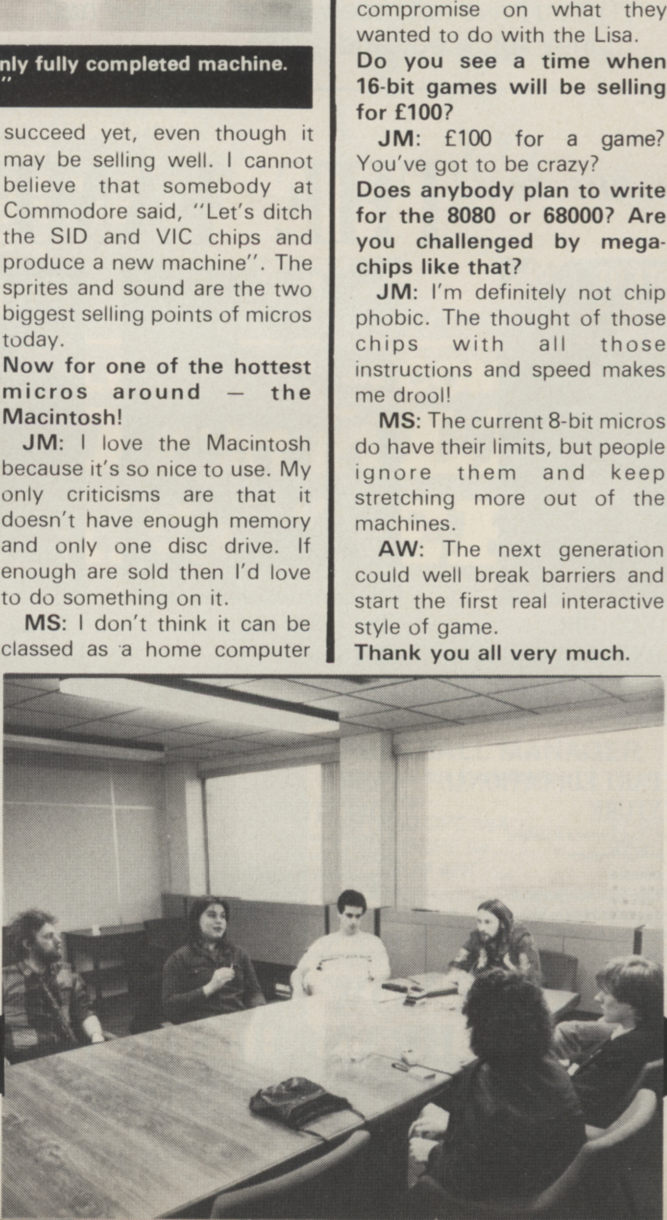
Does anybody plan to write for the 8080 or 68000? Are you challenged by mega-chips like that?

JM: I'm definitely not chip phobic. The thought of those chips with all those instructions and speed makes me drool!

MS: The current 8-bit micros do have their limits, but people ignore them and keep stretching more out of the machines.

AW: The next generation could well break barriers and start the first real interactive style of game.

Thank you all very much.



THE TEAM: one consensus was that Distributors are "evil" and strangle the market.

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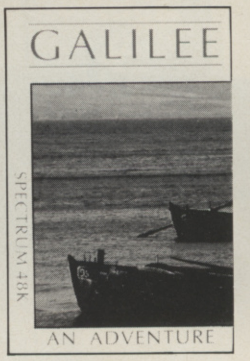

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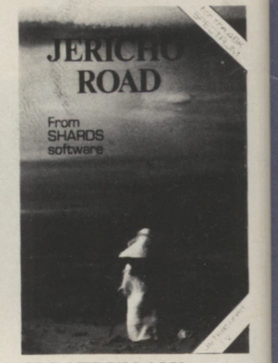

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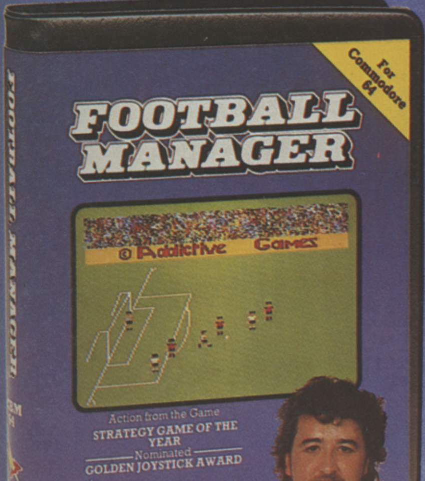
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MIDNIGHT FALLS ON N

For millennia have the six silent cities of N'Ganth lain brooding under their force-domes. Last planet of Empire, last defence of humanity, grim N'Ganth guards the gates of our galaxy. Now the evil hordes of Dakkstarr have amassed their forces, and the cities must fall. Yet there is hope. If you, the last of the great Silo-Lords, can hold off the enemy for long enough, the cities may have time to flash the message to the far-flung outposts of mankind, and then perhaps some may escape, some tiny seeds of civilisation may be saved. You are equipped with your portable megablast and a supply of neutron star-matter pellets. From your post on the Tower of Final Resistance in the centre of the screen, you must move the aiming cross-hair across the screen, your pellets will explode when the aiming point is reached, vaporising any of the Dakkstarr missiles that encounter the resulting mininova. But beware, for when one wave of missiles is cleared, then they will return in renewed strength. You will however receive more ammunition, scoring a 10 unit energy bonus for every pellet you haven't used.

```
5 GOTO 100
10 REM***************************
20 REM   MISSILE COMMAND
30 REM   by Stefan Icarus
40 REM   Toshiba MSX
50 REM***************************
60 REM
65 REM Draw cross-hair
67 REM
70 PUT SPRITE 0,(0,209),0
80 PUT SPRITE 0,(CX,CY),15,0
90 RETURN
95 REM
97 REM   Start of program
99 REM
100 GOSUB 2000' Initialise program
110 GOSUB 1000' Start of Game
120 GOSUB 1800' Draw screen
130 GOSUB 1100'Select targets
140 GOSUB 1400'Move attackers
150 IF DC=6 THEN GOTO 200' all cities de
ad
160 IF DA=NA THEN GOTO 250' all attacker
s dead
170 GOSUB 1500' Get input
180 GOSUB 1600' Move ABMs
190 GOTO 140
200 PRESET (60,100):PRINT#1,"Another Gam
e(Y/N)?"
210 X$=INKEY$:IF X$="" THEN GOTO 210
220 IF X$="Y" OR X$="y" THEN GOTO 110
230 IF X$="n" OR X$="N" THEN END
240 GOTO 210
243 REM
245 REM  Calculate Bonus
247 REM
250 BS=(MD-ND)*10:SC=SC+BS
260 PRESET (60,100):PRINT#1,"Bonus:     "
;BS;
265 FOR N=1 TO 3000:NEXT
270 GOTO 120` NEXT FRAME
897 REM
898 REM Compute ABM course
899 REM
900 XD=CX-130:YD=CY-155
910 DI=SQR(ABS(XD)^2+ABS(YD)^2)
920 TX(ND)=CX+3:TY(ND)=CY+3
930 DV(ND)=XD*DS/DI:DW(ND)=YD*DS/DI
990 RETURN
996 REM
997 REM
998 REM  Start of Game
999 REM
1000 FOR N=1 TO 6:CD(N)=0:NEXT N
1010 IF SC>HS THEN HS=SC
1020 SC=0:NA=1:DC=0
1090 RETURN
1096 REM
1097 REM
1098 REM  Select targets
1099 REM
1100 IF NA<9 THEN NA=NA+1
1110 FOR N=1 TO NA
1120 SP=2+INT(RND(1)*MS)
1130 MT(N)=1+INT(RND(1)*6)
1140 XT=(MT(N)*40-6):AX(N)=INT(RND(1)*25
5)
1150 XD=AX(N)-XT
1160 DI=SQR(ABS(XD)^2+171^2)
1170 AV(N)=XD*SP/DI:AW(N)=171*SP/DI
1180 AY(N)=0:AS(N)=AX(N)
1185 DA=0
1190 NEXT N
1195 RETURN
1197 REM
1198 REM   Scoreboard
1199 REM
1200 PRESET (190,182):PRINT#1,SC;:RETURN
1393 REM
1395 REM Move attack missiles
1397 REM
1400 FOR N=1 TO NA
1410 IF MT(N)>0 THEN GOTO 1420
1413 IF MT(N)=0 GOTO 1490
1415 MT(N)=MT(N)+1:IF MT(N)=0 THEN CIRCL
E(AX(N),AY(N)),7,1:PAINT (AX(N),AY(N)-4)
,1:CIRCLE(AX(N),AY(N)),8,1
1417 GOTO 1490
1420 NX=AX(N)-AV(N):NY=AY(N)+AW(N)
1425 REM check if city hit
1430 IF NY<164 THEN GOTO 1450
1440 IF CD(MT(N))=>0 THEN CD(MT(N))=-1:D
C=DC+1
1445 GOTO 1460
1447 REM  Missile taken out?
1450 IF POINT(NX,NY)<>9 THEN GOTO 1470
1455 SC=SC+50:GOSUB 1200
1460 MT(N)=-20:CIRCLE (NX,NY),8,9:PAINT(
NX,NY-6),9:SOUND 13,0
1465 DA=DA+1:GOTO 1480
1470 PRESET (NX,NY),11
1480 AX(N)=NX:AY(N)=NY
1490 NEXT N
1495 RETURN
1497 REM
1498 REM  scan keyboard
1499 REM
1500 CM=STICK(JS):IF CM=0 THEN GOTO 1590
1510 IF (CM<3 OR CM=8) AND CY>5 THEN CY=
CY-CS
1515 IF (CM>3 AND CM<7) AND CY<140 THEN
CY=CY+CS
1520 IF (CM>1 AND CM<5) AND CX<250 THEN
CX=CX+CS
1530 IF CM>5 AND CX>10 THEN CX=CX-CS
1540 GOSUB 70
1590 RETURN
1593 REM
1595 REM  Move ABMs
1597 REM
1600 CM=STRIG(JS)
1610 IF CM=0 THEN GOTO 1650
1620 IF ND=>MD THEN GOTO 1650
1630 ND=ND+1:DX(ND)=130:DY(ND)=155
1640 GOSUB 900' COMPUTE COURSE
1650 FOR N=1 TO ND
1660 IF DX(N)=0 THEN GOTO 1750
1670 IF DX(N)>0 THEN GOTO 1700
1680 DX(N)=DX(N)+1:IF DX(N)<0 THEN GOTO
1750
1690 CIRCLE (TX(N),TY(N)),7,1:PAINT (TX(
N),TY(N)),1:CIRCLE (TX(N),TY(N)),8,1:GOT
O 1750
```

NGANTH

FOR ANY MSX MACHINE
BY STEFEN ICARUS

CONTROLS:
Joystick or cursor keys to move the cross-hair Fire or space to lauch a neutronium pellet.

```
1700 PUT SPRITE N,(0,209),1
1710 DX(N)=DX(N)+DV(N):DY(N)=DY(N)+DW(N)
1720 IF DY(N)=>TY(N) THEN GOTO 1740
1730 CIRCLE (TX(N),TY(N)),8,9:PAINT (TX(
N)-2,TY(N)-2),9:SOUND 13,0
1735 DX(N)=-20:GOTO 1790
1740 PUT SPRITE N,(DX(N),DY(N)),15,1
1750 NEXT N
1790 RETURN
1796 REM
1797 REM
1798 REM  Draw Start Screen
1799 REM
1800 CLS:N=RND(-TIME)
1810 REM  Draw base line
1820 LINE (0,172)-(255,195),3,BF
1830 REM  Draw Cities
1840 FOR N=1 TO 6
1850 IF CD(N)=-1 THEN GOTO 1880
1860 X=N*40-12:Y=166
1870 LINE (X,Y)-(X+12,Y+6),5,BF
1875 LINE (X+4,Y-7)-(X+8,Y-1),5,BF
1880 NEXT N
1890 REM draw base
1895 SPRITE$(0)=SO$
1900 LINE (129,154)-(139,171),14,BF
1910 CX=130:CY=90:GOSUB 70
1920 ND=0'SET NO OF DEF MS
1930 PRESET(16,182):PRINT#1,"Hi-score: "
;HS
1940 PRESET(140,182):PRINT#1,"Score: ";:
GOSUB 1200
1950 PUT SPRITE 1,(1,208),1
1960 FOR N=1 TO 30:PUT SPRITE N,(0,209),
1:NEXT N
1990 RETURN
1996 REM
1997 REM
1998 REM   Initialise program
1999 REM
2000 DIM AX(9),AY(9),DX(40),DY(40)
2010 DIM TX(40),TY(40),AV(9),AW(9)
2020 DIM DV(40),DW(40),AS(9),ET(40),CD(6
),AT(9)
2022 CLS:PRINT "Keyboard or Joystick(K/J
)?"
2023 X$=INKEY$:IF X$="" THEN GOTO 2023
2024 IF X$="j" OR X$="J" THEN JS=1:GOTO
2027
2025 IF X$="k" OR X$="K" THEN JS=0:GOTO
2027
2026 GOTO 2023
2027 SCREEN 2,0
2030 SO$=""
2040 FOR N=1 TO 8
2050 READ M:SO$=SO$+CHR$(M)
2060 NEXT N
2070 SPRITE$ (0)=SO$
2073 REM DEFINE DM SPRITES
2075 SS$=""
2080 FOR N=1 TO 8
2090 READ M:SS$=SS$+CHR$(M)
2100 NEXT N
2120 SPRITE$(1)=SS$
2150 OPEN "GRP:"AS1
2160 MS=4' att miss speed
2170 COLOR 15,1,1
2180 CS=5:MD=30:DS=4
2190 REM  set up explosion sound
2200 SOUND 0,0:SOUND 1,5
2210 SOUND 2,0:SOUND 3,13
2220 SOUND 4,255:SOUND 5,15
2230 SOUND 6,30:SOUND 7,0
2240 SOUND 8,16:SOUND 9,16
2250 SOUND 10,16:SOUND 11,0
2260 SOUND 12,56:SOUND 13,0
2900 RETURN
2996 REM
2997 REM
2998 REM    Sprite data
2999 REM
3000 DATA 16,16,16,254,16,16,16,0
3010 DATA 0,0,0,16,0,0,0,0
```

MSX GAMES A FIRST LOOK

Fin Fahey looks at all that is best and worst in MSX software

MSX MACHINES have been in the shops for a few months now, and we all know that in terms of units shifted the MSX phenomenon hasn't quite been the mega-invasion that many people (pro and anti) billed it as being. But a fair number have been sold, so what of the software!

Well quite frankly there isn't a lot. Software houses don't seem to have warmed to the famed MSX "computer hi-fi system" approach, and to date there've been no conversions from the enormous range of Spectrum Z80-based programs, barring *Manic Miner,* which Software Projects have converted to run on everything (I'm expecting to see it on the Jupiter Ace any day now). None of the British star software houses have shown a real interest, but maybe this won't last. In the meantime, there are a few bits and bobs around — if you look for them.

Apart from the limited choice, I wasn't thrilled to bits by the quality and tone of MSX software. It all seems robust enough, but there isn't a lot of imagination on show, and particularly in the case of Konami's cartridges, there's definitely a feeling of cuteness about most of the offerings I've seen. Uncle Walt would be proud — cute kids, cute penguins, cute insects, cute mice, cute planes with cute stubby little wings . . . urgh! Not completely to my taste, but presumably the makers are intent on the under-12s market. It makes me thankful for all those grotty little Wallys, Willies and Sabremen who parade regularly across Spectrum screens.

KOMANI

Konami are a Japanese arcade company, and their cartridges show all the expected vices and virtues. On the plus side, it's all very thorough, not the most minor of bugs or even a bum note in the music. On the negative side, it exudes the aforementioned cuteness, particularly *Athletic Land*, a *Pitfall* variant which was originally marketed as *Child Park* in Japan. The game involves getting an utterly charming and engagingly innocent little sprog through a series of obstacles: swinging on ropes over ponds; jumping from one trampoline or block to another; dodging dandelion seeds and so forth. Me, I kept wanting to dump him in it.

Oh Mummy!
ECLIPSE
MSX JOYSTICK OPTION
ECLIPSE SOFTWARE

Hustler
Format: Cassette
From: Bubble Bus
Price: £6.99
Overall: KK

Hustler
Suitable for any MSX Machine
8
bubble bus software
GSH

Oh Mummy!
Format: Cassette
From: Eclipse Software
Price: £5.95
Overall: K

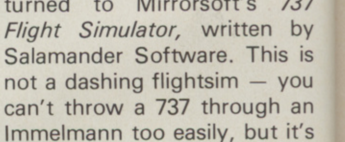
Mind you, I'm not saying it isn't a very playable game. The graphics are very elegant, the tune doesn't drive you mad, and you do get steadily better at playing — the first stages are very easy. I preferred Konami's *Antarctic Adventure,* though. This is structurally similar to *Pole Position,* but instead of a car you control an appealing little penguin.

The game opens with a map showing a route around the Antarctic continent, between the different national bases. Thankfully there is no mention of the Falklands, all the hazards being distinctly non-lethal. Each frame is a route between two neighbouring bases which you have to complete within a time limit in order to get to the next. You manoeuvre the penguin from left to right dodging crevices and pools. The latter are very dodgy — from time to time a walrus may appear and running into him slows you down a lot. You can also vary speed which can be essential on the narrow bits. Great graphics, and once again a game you can ease into gently.

Unlike the preceding two, *Monkey Academy* isn't designed to appeal in any way to adults. It's a girders-and-ledges game with educational intent. This time though, the ape is the hero. You are given a simple sum on the top line of the screen, and you have to find the missing digit by searching through the hanging screens on the various ledges. A villainous crab attempts to stop you (but still contrives to look cute) and you prevent this by bouncing fruit off its head. Once you've got the number you pass it to your girlfriend monkey — not casual sexism — and off to the next frame. I've no idea how this games looks to six-year olds, but it really doesn't hack it as a game — and I still can't add up in my head.

MIRRORSOFT

I get the impression that in Japan games software is seen as something for kids only. It was with some relief that I turned to Mirrorsoft's *737 Flight Simulator,* written by Salamander Software. This is not a dashing flightsim — you can't throw a 737 through an Immelmann too easily, but it's unfussy and a good introduction to the genre. Don't expect a real-time 3D graphic display through the cockpit window (a la *Aviator*). *737* is more of a take-off/landing simulator, but it's quite instructive if you're interested



737 Flight Simulator
Format: Cassette
From: Mirrorsoft
Price: £9.95
Overall: KK

in landing commercial airliners. Well, I'm not really . . . but I quite enjoyed the program nonetheless. I have a suspicion that it could get pretty dull after the fourth routine flight through.

BUBBLE BUS

Another conversion from the Spectrum is Bubble Bus' *Hustler.* This is simply good old bar pool, but with only six balls — a bit too simple I thought. But it's a very solid program, and gives you lots of options. You can play one or two player games, take the balls in strict order, play with each ball assigned its own pocket, or simply down the ball any old way. Cue control is achieved by moving a little cross-hair around the screen using the joystick and pressing fire when the strength gauge is at the right level — it moves up and down continuously, a method which I wasn't too happy with. Still, Bubble Bus have improved on the Spectrum version by allowing spin and this adds a lot to the game. Solid stuff.

We return to cuteness with Kuma's *Fire Rescue.* This is yet another ledges game in which you must rescue a lot of enchanting little Mickey-type mice from a blazing house — just take them to the edge and drop them off. Unfortunately you have to dodge the fires as well and those deep burning holes in the floor which also must be dodged. Extinguishers help, but these are hard to get at. It all became very boring very quickly, and I was particularly annoyed by the lengthy gap between frames.

I preferred *Driller Tanks,* another Kuma product. This is really another ledges game except underground. The scenario involves some rather ugly creatures which for some peculiar reason are called Mammuts and Skorks in the program, but on the sleeve become Hectoriens and Ikedariens. These fire-breathing monstrosities seem hell-bent on busting up a replica of the Taj Mahal. They can be stopped by freezing, followed by crushing, but you may have to do a lot of tunnelling to get to the right position. It isn't all that wonderful, but it has a certain crazed appeal.

Which is more than I can say for *Dog Fighter.* Not a flight simulator, this is a rather lack-lustre shoot-em-up in which you in your little plane (which is of course cute . . .) have to shoot down one or two other little planes from an enemy carrier. A little spice is added by the need to match altitudes, but really I've had more fun cleaning out the cat-tray.

Kuma seem to be really banking on MSX — their fourth package is *Superchess,* altogether a sterner product than the others. Without any other MSX chess packages to compare with, all one can say is that it seems to play reasonably well at moderate levels, and the screen display's pretty readable, although the knight's a funny shape and the board is coloured yellow/green. There are several play levels, the easiest taking an average 3 seconds over a move and the hardest 12 hours. Definitely not cute.

ECLIPSE

Less cute than camp is Eclipse Software's *Oh Mummy!* This is a Painter/Amadar variant. You are an egyptologist scampering around rather disrespectfully between a whole lot of Pharaohs' tombs. As you surround a particular tomb with your footsteps, the contents appear, and they may be either treasure or a dreaded guardian mummy. You have to get hold of both the key and the king's sarcophagus to get to the next frame, but unfortunately a bunch of rather lost-looking mummies keep harassing you. Their touch is death and so forth, but mostly they just wave their arms in the air. In fact the game is very easily learnt, and once you've got the playing technique you can go on for ever or until the Curse of Sleep claims you anyway. Soporific.

ELECTRIC

A final note of cuteness creeps in with Electric Software's *Buzz Off!* You play Bertie the Bee, and the deceptively simple idea is to run around the screen grabbing any fruit lying around, *à la Pac-Man.* Unfortunately with each bit you pick up a bit of spider appears and soon the whole screen is cluttered up. Hit the web or the screen edges and you fall to the ground stunned, whereupon the spider eats you. Well life's like that sometimes. It's a pleasant enough little thing, just not enough to it really.

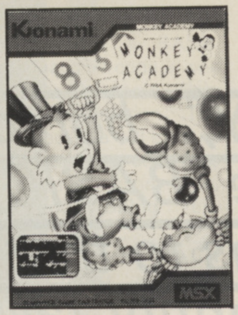
So there it is . . . Sadly, the only software in this bunch I can recommend in any way are the Konami cartridges, expensive as these are, plus *Hustler* and *Superchess,* and just possibly Mirrorsoft's flightsim. It's early days yet of course and MSX programs can only increase in quality and quantity. The only question is how much . . .

Konami
ANTARCTIC ADVENTURE
MSX

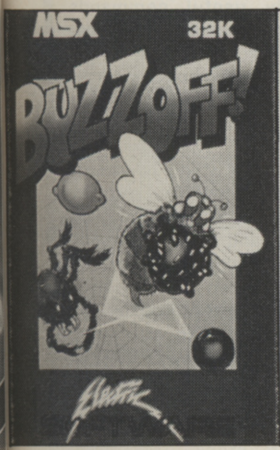
Antarctic Adventure
Format: ROM
From: Konami
Price: £17.85
Overall: KK

Konami
ATHLETIC LAND
MSX

Adventure Land
Format: ROM
From: Konami
Price: £17.85
Overall: KK



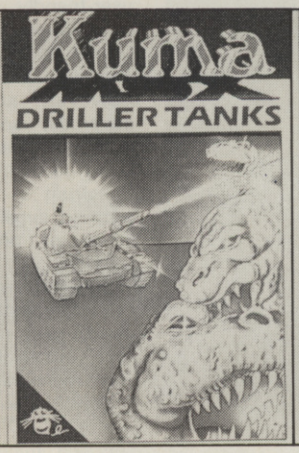
Monkey Academy
Format: Cartridge
From: Konami
Price: £17.85
Overall: K



Buzz Off!
Format: Cassette
From: Electric Software
Price: £8.95
Overall: K

Kuma
MSX
SUPERCHESS
Super Chess

Superchess
Format: Cassette
From: Kuma
Price £8.95
Overall: KK



Driller Tanks
Format: Cassette
From: Kuma
Price: £8.95
Overall: K

Kuma
MSX
DOG FIGHTER

Dog Fighter
Format: Cassette
From: Kuma
Price: £6.95
Overall: K

Kuma
MSX
FIRE RESCUE

Fire Rescue
Format: Cassette
From: Kuma
Price: 7.95
Overall: K

FIN FAHEY, bored to the back teeth with Commodore BASIC, eyeballs some alternatives and additions to that old minimalist ROM and finds that the quantity fails to match the quality.

Souping Up The 64

ONE of the first things that must strike new Commodore 64 owners must be the slightness of its BASIC interpreter.

In theory the machine is an incredibly versatile piece of hardware, with a sound chip, the SID, unlikely to be superseded for a while yet, plus powerful and attractive sprite and hi-res graphics capabilities. In fact, however, none of the advanced features are supported bv the supplied BASIC, so many users simply throw up their hands in dismay and give up on the machine.

Which is a great pity, because there are ways around the problem. Numerous pieces of system software are available which render the 64 a far more user-friendly proposition. For some strange reason Commodore system software suppliers are shy creatures, however, and very rarely advertise, so many of the goodies available are just not being noticed. By contrast, the Spectrum is positively oversupplied, largely due to Sinclair's policy of promoting system software.

So what I'm saying it . . . if I've left anyone out in this brief survey, as surely I have, then I'm sorry, but might I suggest that you re-examine your media profile?

The first thing that comes to mind, when faced with the horrors of CBM BASIC, is to buy a BASIC extension which will simply extend the range of commands. The most well-known of these is Simon's BASIC, which is marketed by Commodore themselves. This adds a fair number of commands to the BASIC, and allows some high-resolution graphics and easier sprite manipulation. There are known to be some bugs in it however.

Melbourne House are also in on the act with their dry-sounding ACOS+. This stands for Advanced Cassette Operating System, and extends the range of i/o commands to allow you to set up directories at the start of your cassettes, and manipulate cassette files much like discs. Considering the snail-like pace of Commodore Discs, there isn't an awful lot of difference.

ACOS+ also adds a range of generally useful commands including text cursor positioning. Raster scan redirection allows the use of interrupt-driven commands, an advanced feature this, since it enables graphic movement to continue irrespective of what's happening in the program. The graphics features are very arcade oriented, and sprite collisions can be detected easily on an interrupt-driven basis, while individual sprites can be defined as being the player, or a flying missile, with appropriate properties.

Sound routines too are interrupt-driven. This means that you can stack up sound definitions in a 'soundbase table'. This forms a queue to the SID chip, and the sounds you've defined are executed one by one totally irrespective of what the rest of the program's doing. The actual commands include control over the envelopes, volumes, waveforms, and filter settings. ACOS+ totals out at 36 new commands altogether and is quite neatly documented.

The Ingenious Ozzies include a game called *ZORN* to demonstrate ACOS's features, but it really is too simple-minded to be a very good advert. It's worth looking at though to get an idea of how to use the system.

Not so well explained is *TURBO* from Aztec Software, but this adds some 45 new commands to BASIC. The individual commands, however, seemed rather less powerful than the ACOS+ set, so quantity may not be a good criterion. This package does include a number of helpful system commands, such as a block delete, a renumber, and an OLD command for restoring programs you've inadvertently NEWed. The graphics commands are not interrupt-driven, however, and don't have the range of ACOS's.

Another way round the BASIC bottleneck is to write in machine code, if you can sustain the learning curve. The only rational way to do this is using an Assembler.

Assembly language is a much more readable form of machine code, although it's still more opaque than BASIC. It's certainly worth learning it on the Commodore, since the 6510 chip it contains is a CBM version of the ubiquitous 6502 chip. This also lies at the core of Atari range, the BBC and Electron, the Atmos and the venerable Apple II, so knowledge in this area will give you a lot of versatility.

Crystal Computing do a more than adequate *ZEUS 64* assembler/monitor. I've used this a great deal and it's fine for professional applications, except that I really need to get my hands on the disc version. Zeus 64 allows a full use of labels, meaning that you don't have to keep working out where in memory the machine code is located. You simply put a label on the instruction, and this can be used as a tag for branch and jump commands, the assembly equivalent of BASIC GOTO, or JSR, the equivalent of GOSUB.

The assembler has an associated monitor, which allows you to examine and change memory easily. Using the monitor to test your assembled routines is a piece of cake. The monitor sits in the 4K of memory between the BASIC and KERNEL ROM, and it pages the assembler in and out of the BASIC RAM area. In this way, none of the user space is wasted, and you can generate quite large assembler source files, which sit where BASIC programs would normally.

COMPLETE M/C TUTOR

But maybe you don't know 6502 machine code in the first place (hem!). In which case you might find a tutorial program useful. New Generation do a fairly complete tutorial program. This comes on two cassettes and describes the actual 6502 command set and architecture, unlike many such products which invent a totally imaginary chip for you to learn about. *THE COMPLETE MACHINE CODE TUTOR* takes you through a series of short lessons, in between which you get to enter 6502 code and watch the effect it has on the registers and memory when executed.

And of course you may not want to go to all the trouble of learning an entirely new language, and I can't really blame you. In which case a compiler is what you want. Compilers convert a BASIC program to machine code in one go, rather than the normal slow line-by-line interpretation. The resultant 'object' file will execute very fast, though not as fast as custom-written machine code, compiled code being very clumsy.

The DTL JETPACK COMPILER, offers a speed improvement of 10 to 100 times. It also gives you a space saving of up to 50%. This is one of those programs that on the disc version requires a hardware 'dongle' sticking on the back of the machine, unusual on a cheap micro, Programs compiled with the DTL Package can be sold commercially with no copyright problems.

If you simply want simply to create adventure games, Codewriter Ltd., have now converted *THE QUILL* for the 64 and renamed it AdventureWriter. This has proven good enough to create commercial adventures on the Spectrum. (See also DORKSLAYER, this issue.)

Mirrorsoft's *GAMES CREATOR* attempts to do for arcade games what The Quill does for adventures. I think it succeeds fairly well, and the simplicity of its layout underlines, for me, how samey a lot of arcade games have become. By shuffling a few basic elements you can produce what looks like an entirely new game. The Games Creator menu covers most things I can think of. Design the background scenery, add a few sprites as baddies, decide what our hero is going to look like, stir in music and effects, it's all here.

Disadvantages are that you can't create multi-screen games of the *MANIC MINER* genre, and there's a limit of five 'baddy' sprites. You can design an adequate Kong with this game, but it's a little understaffed for shoot-em-ups. I loved it nonetheless, as it enables you to design spoof games really quickly. Perhaps *HAMSTER ATTACK* will become a reality after all!

Also from Mirrorsoft is a rather simpler product, *GO-SPRITE*. This is a sophisticated sprite designer, not the most original of ideas, but useful nonetheless. It not only allows you to set up and edit sprites, but you can put them together to run animation sequences.

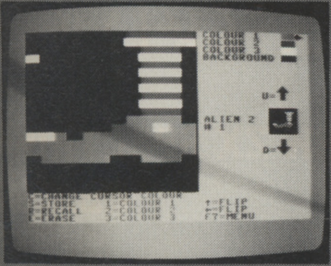
ALTERNATIVE TO BASIC

Last but not least in the question of alternative high-level languages to BASIC. These of course have the disadvantage that, unlike assemblers, you can't run the programs you set up with them independent of the host package, so commercial development is stultified. I looked at Commodore's own *LOGO*. This is a disc version of what is very much a learner's language. Logo is very graphics oriented and encourages you to develop procedures interactively with the hi-res screen. Programs consist of a series of procedure definitions, which means that you work by writing your own commands, which you can then recombine to give other commands and so on.

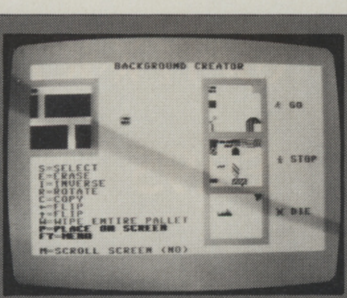
The Commodore version seemed pretty fast, and is accompanied by an impressively laid-out, highly readable, but nonetheless weighty manual.

Overall, it seems odd that a machine like the 64, with such glaring gaps in its BASIC and operating system, is so ill-served by system software companies, but perhaps they use some strange new method of marketing . . .

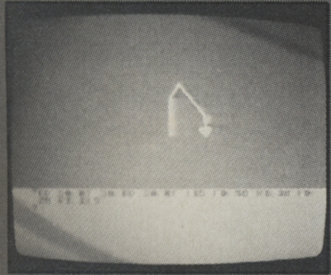
Telepathy!



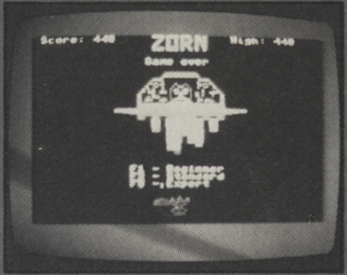
Games Creator—a wooly sock?



Games Creator—behind the scenes.



Turning turtle with Logo.



Naff games made simple with ACOS.

Simon's BASIC
from Commodore
Price: 19.95

ACOS+
from Melbourne House
Price: 8.95

Turbo
from Aztec Software
Price:

Zeus 64 Assembler
from Crystal Computing
Price: 9.95 (Cassette)

The Complete Machine Code Tutor
from New Generation Software
Price: £14.95

Commodore 64 Jetpack Compiler
from DTL
Price: £14.95 (Cassette)
£39.95 (Disc)

Games Creator
from Mirrorsoft
Price: £12.95 (Cassette)
£15.95 (Disc)

AdeventureWriter
from CodeWriter Ltd.
Price: £24.95 (disc)

Go Sprite
from Mirrorsoft
Price: £9.95 (Cassette)
£11.95 (Disc)

Logo
from Commodore
Price: £34.35

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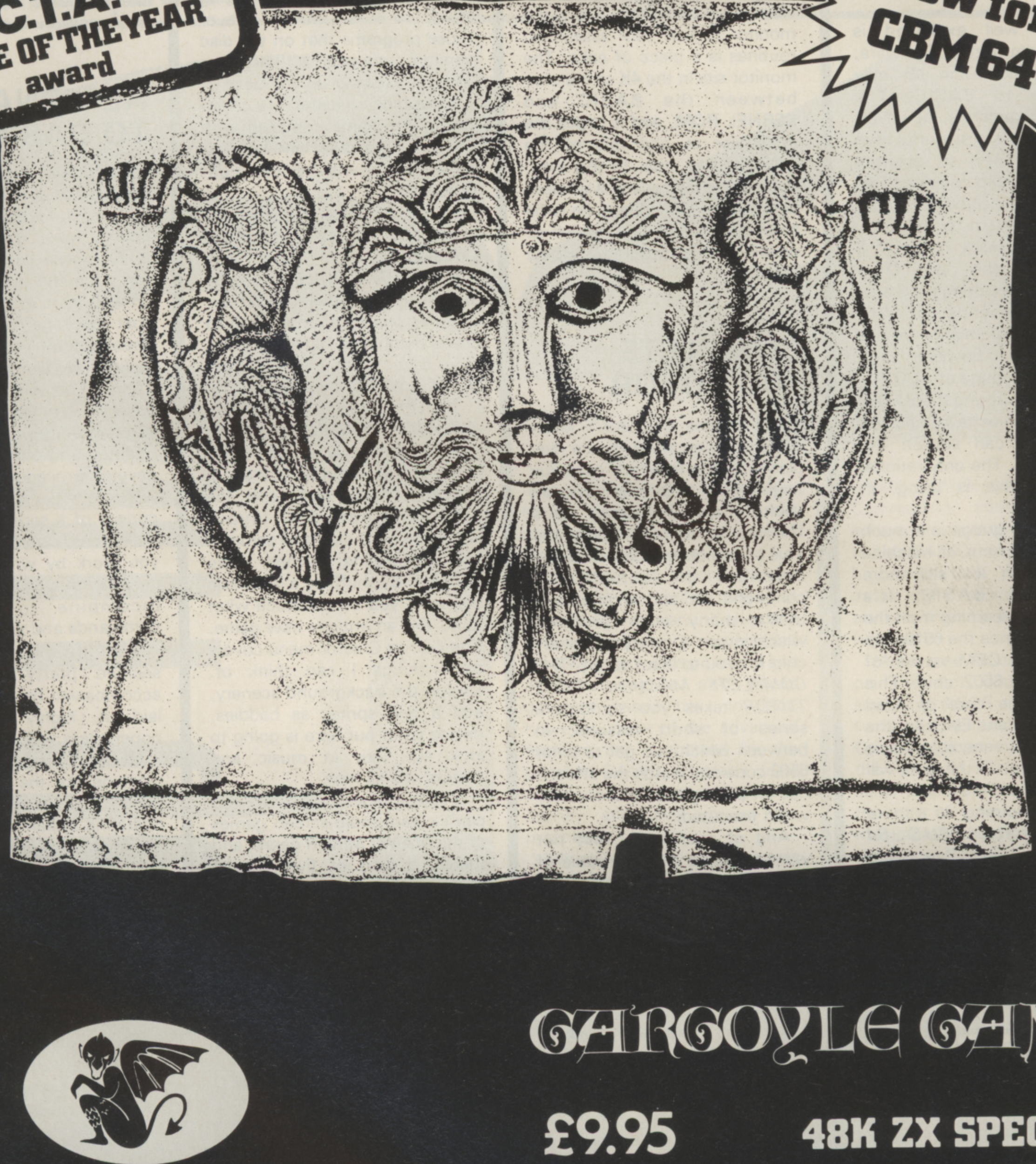
GAME OF THE YEAR
award

Now for CBM 64



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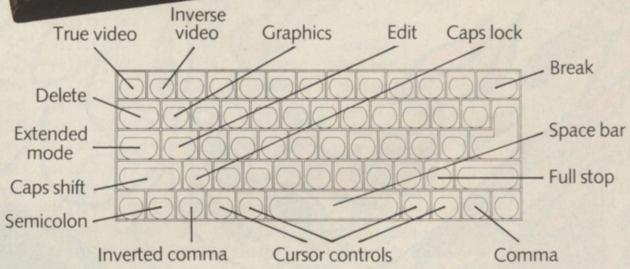
Please note: the upgrade offer applies to working 48K Spectrum models in the UK only.



To: Sinclair Research Limited, Upgrade Dept., Stanhope Road, Camberley, Surrey, GU15 3PS.

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OR
☐ Please upgrade my 48K Spectrum for me. I enclose my computer together with payment of £30.

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BGK 503

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Upgrade Department,
Stanhope Road, Camberley,
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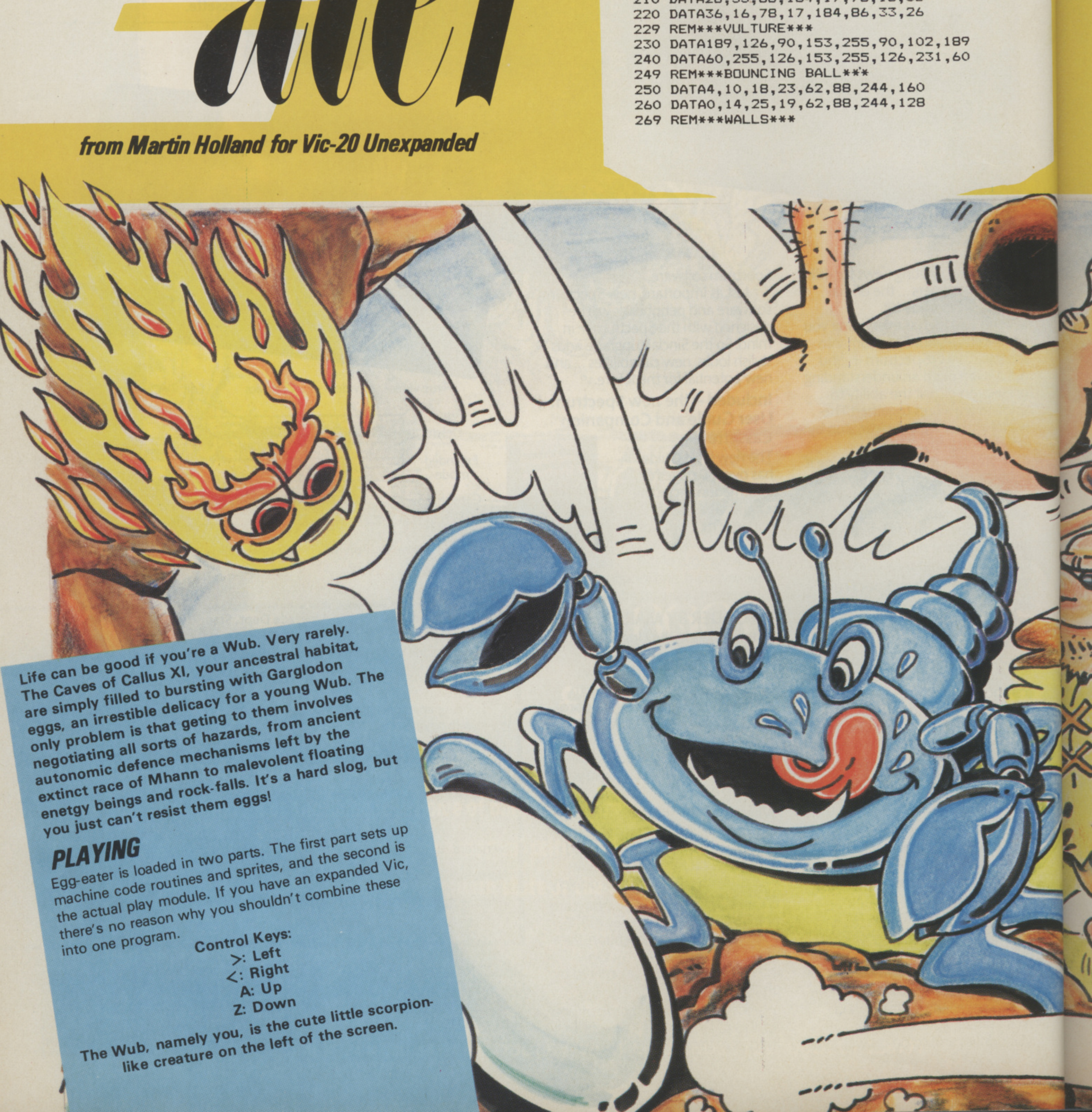
Egg eater

from Martin Holland for Vic-20 Unexpanded

LIST 1

```
10 POKE52,28:POKE56,28
20 FORI=7168TO7679
30 READA
40 POKEI,A
50 NEXT
60 POKE198,3:POKE632,147:POKE633,131
99 REM***BIRD LEFT***
100 DATA0,0,0,54,217,61,14,24
110 DATA0,0,2,53,217,59,14,24
119 REM***BIRD RIGHT***
120 DATA0,0,0,108,155,188,112,24
130 DATA0,0,64,172,155,220,112,24
139 REM***EGG***
140 DATA0,30,127,255,255,255,127,30
149 REM***STALACTITES***
150 DATA8,8,24,28,30,30,127,255
159 REM***FORCE FIELD***
160 DATA10,10,10,10,10,10,10,10
169 REM***WALKING MAN***
170 DATA7,11,6,13,13,6,9,27
180 DATA112,176,96,208,176,96,32,96
189 REM***TWITCHING FOOT***
190 DATA10,10,10,10,81,161,137,118
200 DATA10,10,10,10,17,97,137,118
209 REM***EXPLODING BIRD***
210 DATA26,33,86,184,17,78,16,36
220 DATA36,16,78,17,184,86,33,26
229 REM***VULTURE***
230 DATA189,126,90,153,255,90,102,189
240 DATA60,255,126,153,255,126,231,60
249 REM***BOUNCING BALL***
250 DATA4,10,18,23,62,88,244,160
260 DATA0,14,25,19,62,88,244,128
269 REM***WALLS***
```



Life can be good if you're a Wub. Very rarely. The Caves of Callus XI, your ancestral habitat, are simply filled to bursting with Garglodon eggs, an irrestible delicacy for a young Wub. The only problem is that geting to them involves negotiating all sorts of hazards, from ancient autonomic defence mechanisms left by the extinct race of Mhann to malevolent floating enetgy beings and rock-falls. It's a hard slog, but you just can't resist them eggs!

PLAYING

Egg-eater is loaded in two parts. The first part sets up machine code routines and sprites, and the second is the actual play module. If you have an expanded Vic, there's no reason why you shouldn't combine these into one program.

Control Keys:
>: Left
<: Right
A: Up
Z: Down

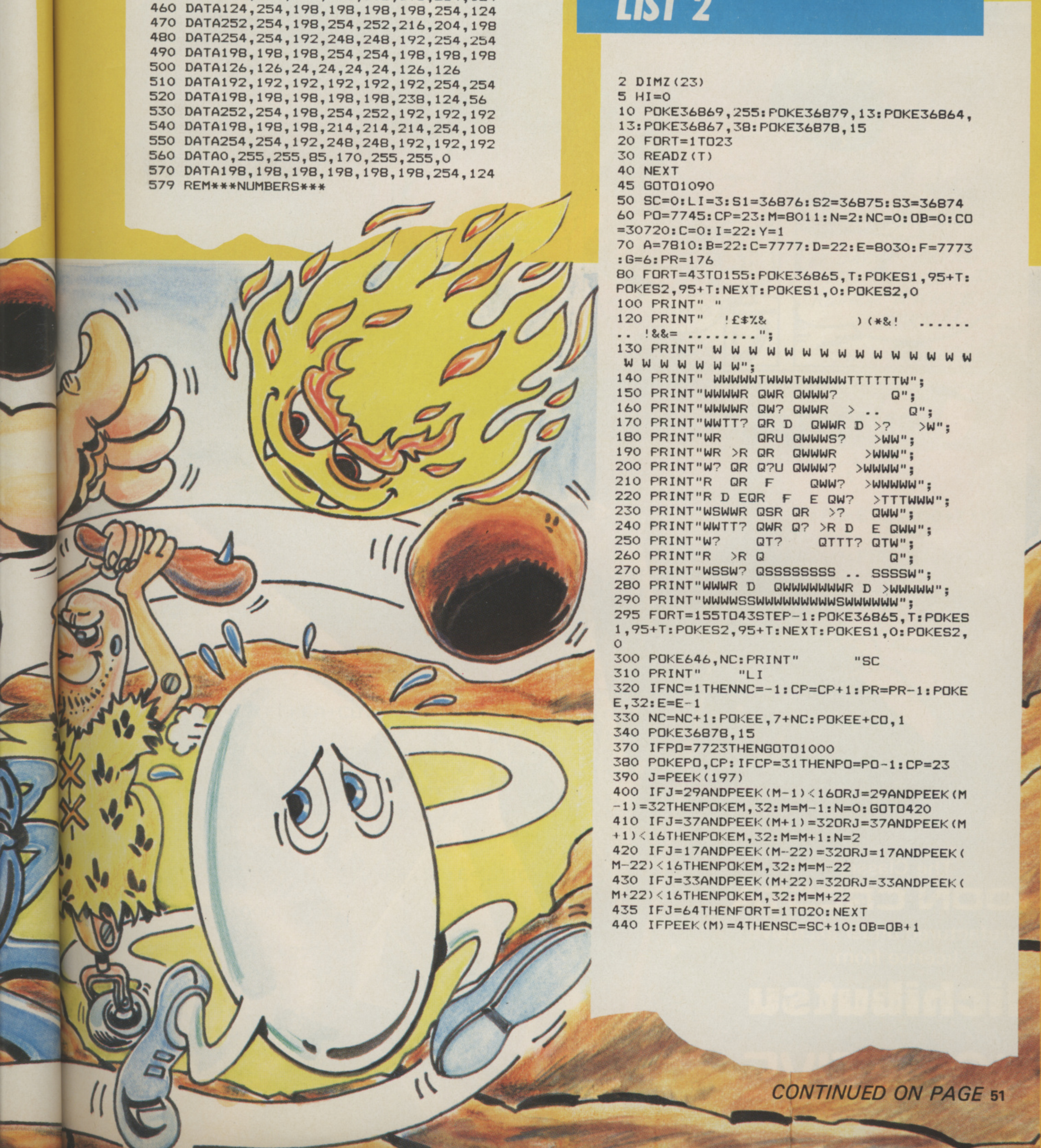
The Wub, namely you, is the cute little scorpion-like creature on the left of the screen.

EGG EATER for Vic 20

```
270 DATA127,255,127,63,63,127,63,63
280 DATA254,255,255,254,252,252,254,252
290 DATA137,205,255,255,255,255,255,255
300 DATA255,255,255,255,255,255,205,137
309 REM***LEDGE***
310 DATA221,255,246,98,32,0,0,0
319 REM***EMBLEM***
320 DATA80,168,168,169,169,15,9,9
329 REM***ENERGY BAR***
330 DATA255,255,255,255,255,255,255,255
340 DATA255,255,254,254,254,254,255,255
350 DATA255,255,252,252,252,252,255,255
360 DATA255,255,248,248,248,248,255,255
370 DATA255,255,240,240,240,240,255,255
380 DATA255,255,224,224,224,224,255,255
390 DATA255,255,192,192,192,192,255,255
400 DATA255,255,128,128,128,128,255,255
410 DATA255,255,0,0,0,0,255,255
419 REM***SPACE***
420 DATA0,0,0,0,0,0,0,0
429 REM***CREDITS***
430 DATA126,254,192,252,126,6,254,252
440 DATA0,0,0,0,0,0,0,0
450 DATA124,254,198,192,192,198,254,124
460 DATA124,254,198,198,198,198,254,124
470 DATA252,254,198,254,252,216,204,198
480 DATA254,254,192,248,248,192,254,254
490 DATA198,198,198,254,254,198,198,198
500 DATA126,126,24,24,24,24,126,126
510 DATA192,192,192,192,192,192,254,254
520 DATA198,198,198,198,198,238,124,56
530 DATA252,254,198,254,252,192,192,192
540 DATA198,198,198,214,214,214,254,108
550 DATA254,254,192,248,248,192,192,192
560 DATA0,255,255,85,170,255,255,0
570 DATA198,198,198,198,198,198,254,124
579 REM***NUMBERS***
580 DATA124,254,206,214,214,230,254,124
590 DATA28,60,44,12,12,12,30,30
600 DATA124,254,198,14,28,56,126,254
610 DATA124,254,134,62,62,134,254,124
620 DATA192,198,198,254,254,6,6,6
630 DATA254,254,192,252,254,6,254,252
640 DATA124,254,192,252,254,198,254,124
650 DATA254,254,6,14,28,56,48,48
660 DATA124,254,198,124,124,198,254,124
670 DATA124,254,198,254,126,6,254,124
679 REM***CREDITS***
680 DATA124,254,198,254,254,198,198,198
690 DATA108,254,214,214,214,214,214,214
700 DATA124,254,198,198,198,198,198,198
710 DATA252,254,102,102,102,102,254,252
719 REM***CAVE ROOF***
720 DATA1,3,3,15,95,95,255,255
730 DATA255,255,250,250,240,192,192,128
```

LIST 2

```
2 DIMZ(23)
5 HI=0
10 POKE36869,255:POKE36879,13:POKE36864,
13:POKE36867,38:POKE36878,15
20 FORT=1TO23
30 READZ(T)
40 NEXT
45 GOTO1090
50 SC=0:LI=3:S1=36876:S2=36875:S3=36874
60 PO=7745:CP=23:M=8011:N=2:NC=0:OB=0:CO
=30720:C=0:I=22:Y=1
70 A=7810:B=22:C=7777:D=22:E=8030:F=7773
:G=6:PR=176
80 FORT=43TO155:POKE36865,T:POKES1,95+T:
POKES2,95+T:NEXT:POKES1,0:POKES2,0
100 PRINT" "
120 PRINT"  !£$%&            )(*&!  ......
.. !&&= ........";
130 PRINT" W W W W W W W W W W W W W W W
 W W W W W W W";
140 PRINT" WWWWWTWWWTWWWWWTTTTTTW";
150 PRINT"WWWWR QWR QWWW?       Q";
160 PRINT"WWWWR QW? QWWR  > ..   Q";
170 PRINT"WWTT? QR D  QWWR D >?   >W";
180 PRINT"WR     QRU QWWWS?   >WW";
190 PRINT"WR >R QR  QWWWR   >WWW";
200 PRINT"W? QR Q?U QWWW?  >WWWW";
210 PRINT"R  QR  F    QWW?  >WWWWW";
220 PRINT"R D EQR  F  E QW?  >TTTWWW";
230 PRINT"WSWWR QSR QR  >?   QWW";
240 PRINT"WWTT? QWR Q? >R D  E QWW";
250 PRINT"W?     QT?    QTTT? QTW";
260 PRINT"R  >R Q                Q";
270 PRINT"WSSW? QSSSSSSSS .. SSSSW";
280 PRINT"WWWR D  QWWWWWWWR D >WWWWW";
290 PRINT"WWWWSSWWWWWWWWWSWWWWWW";
295 FORT=155TO43STEP-1:POKE36865,T:POKES
1,95+T:POKES2,95+T:NEXT:POKES1,0:POKES2,
0
300 POKE646,NC:PRINT"        "SC
310 PRINT"    "LI
320 IFNC=1THENNC=-1:CP=CP+1:PR=PR-1:POKE
E,32:E=E-1
330 NC=NC+1:POKEE,7+NC:POKEE+CO,1
340 POKE36878,15
370 IFPO=7723THENGOTO1000
380 POKEPO,CP:IFCP=31THENPO=PO-1:CP=23
390 J=PEEK(197)
400 IFJ=29ANDPEEK(M-1)<16ORJ=29ANDPEEK(M
-1)=32THENPOKEM,32:M=M-1:N=0:GOTO420
410 IFJ=37ANDPEEK(M+1)=32ORJ=37ANDPEEK(M
+1)<16THENPOKEM,32:M=M+1:N=2
420 IFJ=17ANDPEEK(M-22)=32ORJ=17ANDPEEK(
M-22)<16THENPOKEM,32:M=M-22
430 IFJ=33ANDPEEK(M+22)=32ORJ=33ANDPEEK(
M+22)<16THENPOKEM,32:M=M+22
435 IFJ=64THENFORT=1TO20:NEXT
440 IFPEEK(M)=4THENSC=SC+10:OB=OB+1
```



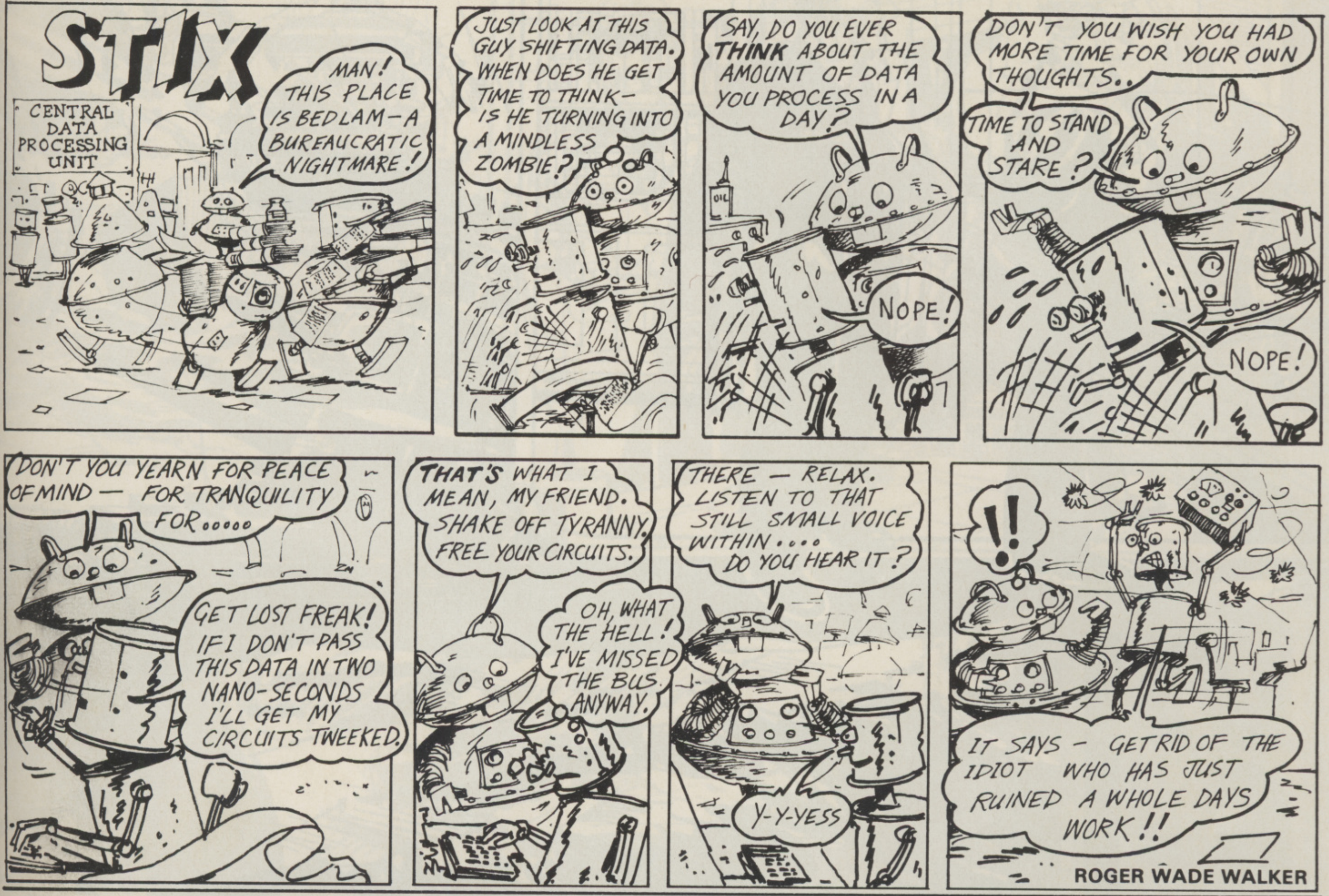
CONTINUED ON PAGE

MG-X1
MG-X2
MG-X3

MOON CRESTA

The Classic
MOON CRESTA
manufactured under exclusive
licence from
Nichibutsu

INCENTIVE
(0734) 591678


STIX
CENTRAL DATA PROCESSING UNIT
MAN! THIS PLACE IS BEDLAM—A BUREAUCRATIC NIGHTMARE!
JUST LOOK AT THIS GUY SHIFTING DATA. WHEN DOES HE GET TIME TO THINK— IS HE TURNING INTO A MINDLESS ZOMBIE?
SAY, DO YOU EVER THINK ABOUT THE AMOUNT OF DATA YOU PROCESS IN A DAY?
NOPE!
DON'T YOU WISH YOU HAD MORE TIME FOR YOUR OWN THOUGHTS..
TIME TO STAND AND STARE?
NOPE!
DON'T YOU YEARN FOR PEACE OF MIND — FOR TRANQUILITY FOR.....
GET LOST FREAK! IF I DON'T PASS THIS DATA IN TWO NANO-SECONDS I'LL GET MY CIRCUITS TWEEKED.
THAT'S WHAT I MEAN, MY FRIEND. SHAKE OFF TYRANNY, FREE YOUR CIRCUITS.
OH, WHAT THE HELL! I'VE MISSED THE BUS ANYWAY.
THERE — RELAX. LISTEN TO THAT STILL SMALL VOICE WITHIN.... DO YOU HEAR IT?
Y-Y-YESS
!!
IT SAYS - GET RID OF THE IDIOT WHO HAS JUST RUINED A WHOLE DAYS WORK!!
ROGER WADE WALKER

EGG EATER CONTINUED FROM PAGE 49

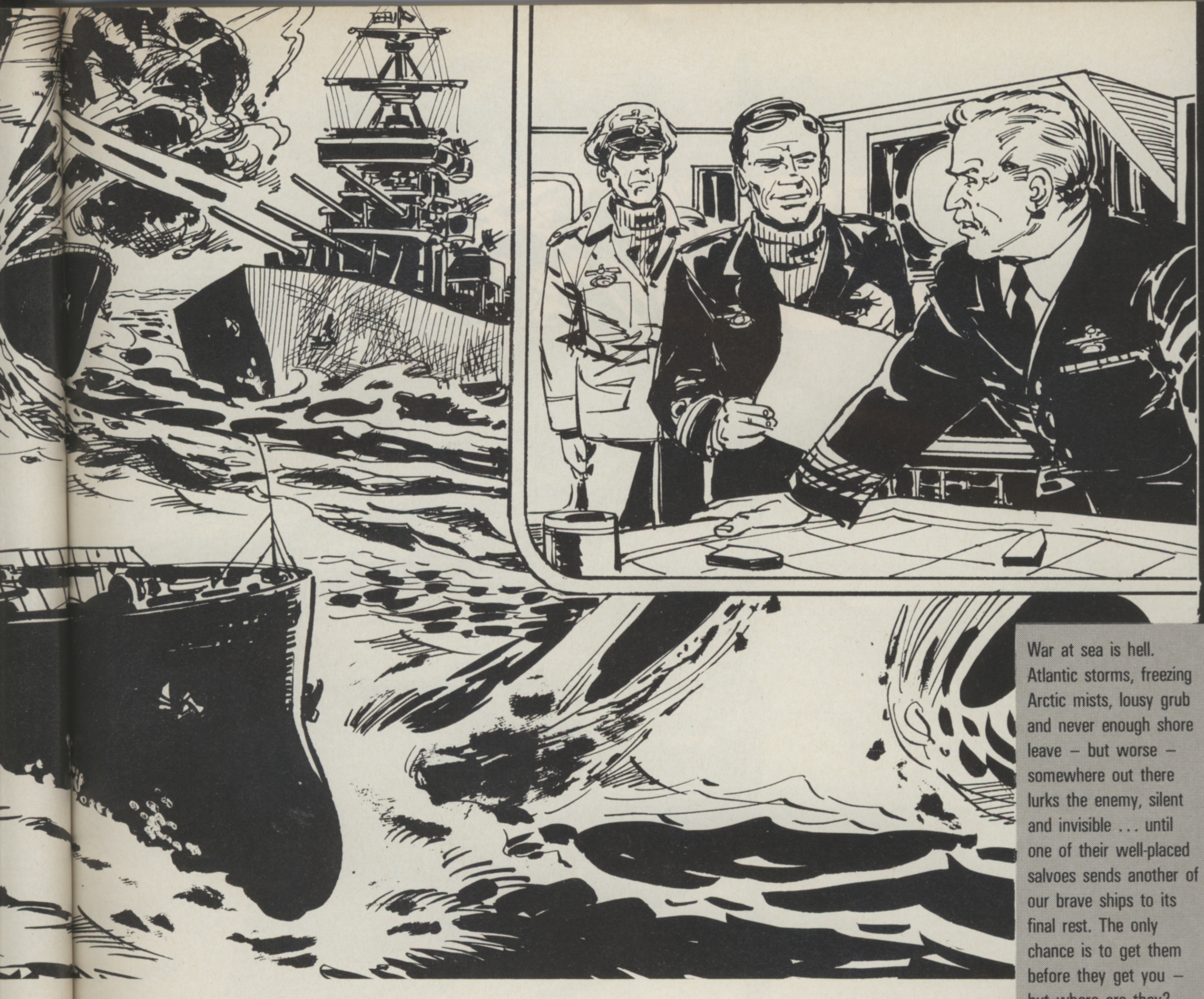
```
450 IFPEEK(M)=5ORPEEK(M)=6ORM=AORM=CORM=
EORM=FTHENGOTO1000
460 POKEM,N+NC:POKEM+CO,1
470 IFOB=2THENPOKE7906,32:POKE7928,32:OB
=OB+1
475 IFOB=6THENPOKE8047,32:OB=OB+1
480 IFOB=8ANDM=8011THENPOKES1,0:POKES2,0
:POKES3,0:SC=SC+PR:LI=LI+1:GOTO60
490 POKES2,0
500 POKEA,32
510 IFA=8020THENA=7789
520 A=A+21
530 POKEA,15+NC:POKEA+CO,1
540 IFA=MTHEN1000
550 IFC=7777THENG=6:D=22:POKEC,6:POKEC+C
O,1
560 IFC=8019THENG=32:D=-22:POKEC,32
570 POKEC,G:POKEC+CO,1:C=C+D
580 POKEC,9+NC:POKEC+CO,1
590 IFC=MTHEN1000
600 IFE=8017ANDNC=1THENPOKEE,32:E=8030:N
C=0
610 IFE=MTHEN1000
620 POKE36878,10
630 IFF=7773THENI=22
640 IFF=8059THENI=-22
650 POKEF,32:F=F+I
660 POKEF,13+NC:POKEF+CO,1
670 IFF=MTHEN1000
700 Y=Y+1
710 IFY=24THENY=1
720 POKES1,200+Z(Y):POKES2,200+Z(Y):POKE
S3,200+Z(Y):GOTO300
1000 POKES1,0:POKES2,0:POKES3,0:POKE3687
8,15:FORT=1TO25
1010 FORR=11TO12:POKE36877,230+T:POKEM,R
:POKE36879,R+1
1020 FORZ=1TO25:NEXTZ,R,T
1070 POKE36877,0:LI=LI-1
1080 IFLI>0THEN60
1090 PRINT""
1100 IFSC>HITHENHI=SC
1110 PRINT"....|...."
1120 PRINT"=*=!!"
1130 PRINT". ;.'$)):<= (£) 1984
."; 
1140 PRINT"'( !£$%& "HI
1150 PRINT"! !£$%&  "SC
1160 PRINT"V+%&!! -1 V"
1170 A$=" V £:*&%<   %/<"
1180 Q$=A$:R$=RIGHT$(A$,14):A$=R$+LEFT$(
Q$,1)
1190 PRINT""LEFT$(A$,14):IFPEEK(
197)=39THENGOTO50
1200 FORT=1TO150:NEXT:GOTO1180
2000 DATA23,19,23,25,19,15,19,19,23,25,2
3
2010 DATA19,19,15,1,1,7,15,23,19,19,23,2
5
```

BATTLESHIPS

BY NICK PEARCE FOR ANY ATARI

```
1 GOSUB 8000:REM BATTLESHIPS -N.Pearce,
Oct 84
200 POSITION N0,20:? "option select star
t  EXIT                 PLAY";
220 POSITION 30,20:? DIFF;:GOSUB BUZZ
240 IF REEK(CONSOL)=3 THEN 9900'
250 IF PEEK(CONSOL)<>5 THEN 280
260 DIFF=DIFF+N1:IF DIFF=4 THEN DIFF=N1
270 GOTO 220
280 IF PEEK(CONSOL)<>N6 THEN 240
290 POKE 77,N0:GOSUB 9600
300 POSITION N2,N1:? "enemy placement";
310 FOR M=N0 TO N15:GOSUB PTR:FOR N=N0 T
O N15:E(N,M)=N0:P(N,M)=N0:NEXT N:NEXT M
315 FOR L=N0 TO 10:SIZE=S(L)
320 GOSUB PTR:WAY=INT(RND(N0)*N2):IF WAY
 THEN 330
325 X=INT(RND(N0)*(17-SIZE)):X2=X+SIZE:Y
=INT(RND(N0)*N16):Y2=Y+N1:GOTO 340
330 X=INT(RND(N0)*N16):X2=X+N1:Y=INT(RND
(N0)*(17-SIZE)):Y2=Y+SIZE
340 X1=X-N1:IF X1<N0 THEN X1=X
345 Y1=Y-N1:IF Y1<N0 THEN Y1=Y
350 IF X2>N15 THEN X2=N15
355 IF Y2>N15 THEN Y2=N15
360 FOR M=Y1 TO Y2:FOR N=X1 TO X2:IF E(N
,M) THEN POP :POP :GOTO 320
365 NEXT N:NEXT M:CODE=X1+Y1*N16+SIZE*10
00+(X2+Y2*N16)/1000:IF WAY THEN 375
370 FOR M=X TO X+SIZE-N1:E(M,Y)=CODE:NEX
T M:GOTO 380
375 FOR M=Y TO Y+SIZE-N1:E(X,M)=CODE:NEX
T M
380 NEXT L:SOUND N0,N0,N0,N0:POSITION N0
,N1:? B$;
400 POSITION N2,N1:? "place your ships";
:XMIN=N2:YMIN=3:XMAX=17:YMAX=18:X=XMIN:Y
=YMIN:GOSUB BUZZ
406 FOR L=N0 TO 10:SIZE=S(L):POSITION N1
,20:GOSUB SHIP:? " SIZE ";SIZE;:GOTO 416
412 POSITION 26,N1:? "[illegible]";:SOUND N0
,240,10,8
414 FOR M=N0 TO 130:NEXT M:SOUND N0,N0,N
0,N0:POSITION 20,N1:? B$(N1,18);
416 GOSUB STIK:X0=X-N2:Y0=Y-3:GOSUB BUZZ
424 S=STICK(N0):IF S=7 THEN 436
428 IF S<>13 THEN 424
432 IF Y0+SIZE>N16 THEN 412
434 X2=X0+N1:Y2=Y0+SIZE:GOTO 442
436 IF X0+SIZE>N16 THEN 412
438 X2=X0+SIZE:Y2=Y0+N1
442 X1=X0-N1:IF X1<N0 THEN X1=N0
444 Y1=Y0-N1:IF Y1<N0 THEN Y1=N0
446 IF X2>N15 THEN X2=N15
448 IF Y2>N15 THEN Y2=N15
450 FOR M=Y1 TO Y2:FOR N=X1 TO X2:IF P(N
,M) THEN POP :POP :GOTO 412
454 NEXT N:NEXT M:CODE=X1+Y1*N16+SIZE*10
00+(X2+Y2*N16)/1000:IF S=7 THEN 458
456 FOR M=Y0 TO Y0+SIZE-N1:P(X0,M)=GODE:
POSITION X,M+3:PUT #N6,37:NEXT M:GOTO 46
0
458 FOR M=X0 TO X0+SIZE-N1:P(M,Y0)=CODE:
POSITION M+N2,Y:PUT #N6,37:NEXT M
460 POSITION N0,20:? B$;:FOR M=N0 TO 50:
NEXT M
470 NEXT L:POSITION N0,N1:? B$;:POKE PC,
N0
499 REM [illegible]
500 FOR M=N0 TO 40:XE=INT(RND(N0)*N16):Y
E=INT(RND(N0)*N16):IF  NOT P(XE,YE) THEN
 P(XE,YE)=N10000
505 NEXT M:POSITION N2,N1:? "start of ba
ttle";:SOUND N0,180,10,N6
510 FOR M=N0 TO DIFF*20:XE=INT(RND(N0)*N
16):YE=INT(RND(N0)*N16):IF  NOT P(XE,YE)
 THEN P(XE,YE)=N10000
515 NEXT M:SOUND N0,N0,N0,N0:XMIN=21:XMA
X=36:X=XMIN:Y=YMIN:XE=N0:YE=N0:COUNT=N0
520 POSITION N0,N1:? B$(N1,11);"you";B$(
```

BATTLESHIPS for any Atari



War at sea is hell. Atlantic storms, freezing Arctic mists, lousy grub and never enough shore leave – but worse – somewhere out there lurks the enemy, silent and invisible ... until one of their well-placed salvoes sends another of our brave ships to its final rest. The only chance is to get them before they get you – but where are they?

In this traditional game, you must place your ships on the left hand grid – they come in a number of sizes from a five-square battleship to a one square destroyer. The computer will do the same on the right grid, although you can't see its pieces. You then take it in turns to launch salvoes, and with informed guesswork you have to try and sink seven of the enemy units before they do the same to you. A unit is only sunk when all its squares have been zapped.

CONTROLS:

Use Joystick in Port 1 to move cursor around grid to select ship position and salvo target.

```
N1,17);"attack";:GOSUB BUZZ:GOSUB STIK:X
0=X-21:Y0=Y-3:POSITION X,Y
530 FOR M=8 TO 58:SOUND N0,M,10,N6:NEXT
M:POKE PC,N0:IF E(X0,Y0) THEN 545
535 SOUND N0,N2,N0,8:FOR M=N0 TO 40:NEXT
 M:SOUND N0,N0,N0,N0:PUT #N6,38:E(X0,Y0)
=N10000:GOTO 600
545 IF E(X0,Y0)>=N10000 THEN 520
550 CODE=E(X0,Y0):GOSUB HIT:PUT #N6,166:
E(X0,Y0)=E(X0,Y0)+N10000
560 FOR M=Y1 TO Y2:FOR N=X1 TO X2:IF  NO
T E(N,M) OR E(N,M)>=N10000 THEN NEXT N:N
EXT M:GOTO 570
565 POP :POP :GOTO 600
570 POSITION N2,20:GOSUB SHIP:? "[illegible]";
:FOR M=N0 TO 200:NEXT M:POSITION N0,20:?
 B$;
580 ESUNK=ESUNK+N1:GOSUB 9700:IF ESUNK=7
 THEN 900
600 FOR M=N0 TO 90:NEXT M:POSITION N2,N1
:? "enemy";B$(N1,N15);"attack";B$(N1,10)
;
610 POKE PX,54+XE*4:POKE PY,72+YE*8:POKE
 PC,112
615 SOUND N0,180,10,N6:FOR M=N0 TO 50:NE
XT M:SOUND N0,N0,N0,N0
620 COUNT=COUNT+N1:IF COUNT<60-DIFF*10 T
HEN FOR M=N0 TO 200:NEXT M:GOTO 770
700 FOR M=YY TO N15:FOR N=XX TO N15:IF P
(N,M)<=N10000 THEN NEXT N:NEXT M:GOTO 77
0
705 WAY=INT(RND(N0)*4)+N1:L=WAY
710 ON L GOTO 715,725,735,745
715 XE=N:YE=M-N1:IF YE<N0 THEN 755
720 GOTO 750
725 XE=N+N1:YE=M:IF XE>N15 THEN 755
730 GOTO 750
735 XE=N:YE=M+N1:IF YE>N15 THEN 755
740 GOTO 750
745 XE=N-N1:YE=M:IF XE<N0 THEN 755
750 IF P(XE,YE)<N10000 THEN POP :POP :XX
=XE:YY=YE:GOTO 775
755 L=L+N1:IF L=5 THEN L=N1
760 IF L<>WAY THEN 710
765 NEXT N:NEXT M
770 XE=INT(RND(N0)*N16):YE=INT(RND(N0)*N
16):XX=N0:YY=N0:IF P(XE,YE)>=N10000 THEN
 770
775 POKE PX,54+XE*4:POKE PY,72+YE*8:POSI
TION XE+N2,YE+3
780 FOR M=20 TO 80:SOUND N0,M,10,N6:NEXT
 M:POKE PC,N0:IF P(XE,YE) THEN 800   .
785 SOUND N0,N2,N0,8:FOR M=N0 TO 40:NEXT
 M:SOUND N0,N0,N0,N0:PUT #N6,38:P(XE,YE)
=N10000:GOTO 520
800 CODE=P(XE,YE):GOSUB HIT:PUT #N6,166:
P(XE,YE)=P(XE,YE)+N10000
810 M=XE-N1:N=YE-N1:IF M>=N0 AND N>=N0 T
HEN P(M,N)=N10000 .
815 M=XE+N1:IF M<N16 AND N>=N0 THEN P(M,
N)=N10000
820 N=YE+N1:IF M<N16 AND N<N16 THEN P(M,
N)=N10000
825 M=XE-N1:IF M>=N0 AND N<N16 THEN P(M,
N)=N10000
830 FOR M=Y1 TO Y2:FOR N=X1 TO X2:IF  NO
T P(N,M) OR P(N,M)>=N10000 THEN NEXT N:N
EXT M:GOTO 840
835 POP :POP :GOTO 520
840 POSITION N2,20:GOSUB SHIP:? "[illegible]";
:FOR M=N0 TO 200:NEXT M:POSITION N0,20:?
 B$;
850 FOR M=Y1 TO Y2:FOR N=X1 TO X2:P(N,M)
=N10000:NEXT N:NEXT M
860 PSUNK=PSUNK+N1:GOSUB 9700:IF PSUNK<7
 THEN 520
899 REM WIN
900 POSITION 5,20:IF ESUNK=7 THEN ? "[illegible]
WIN";
920 IF PSUNK=7 THEN ? "ENEMY WINS";
```

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BATTLESHIPS

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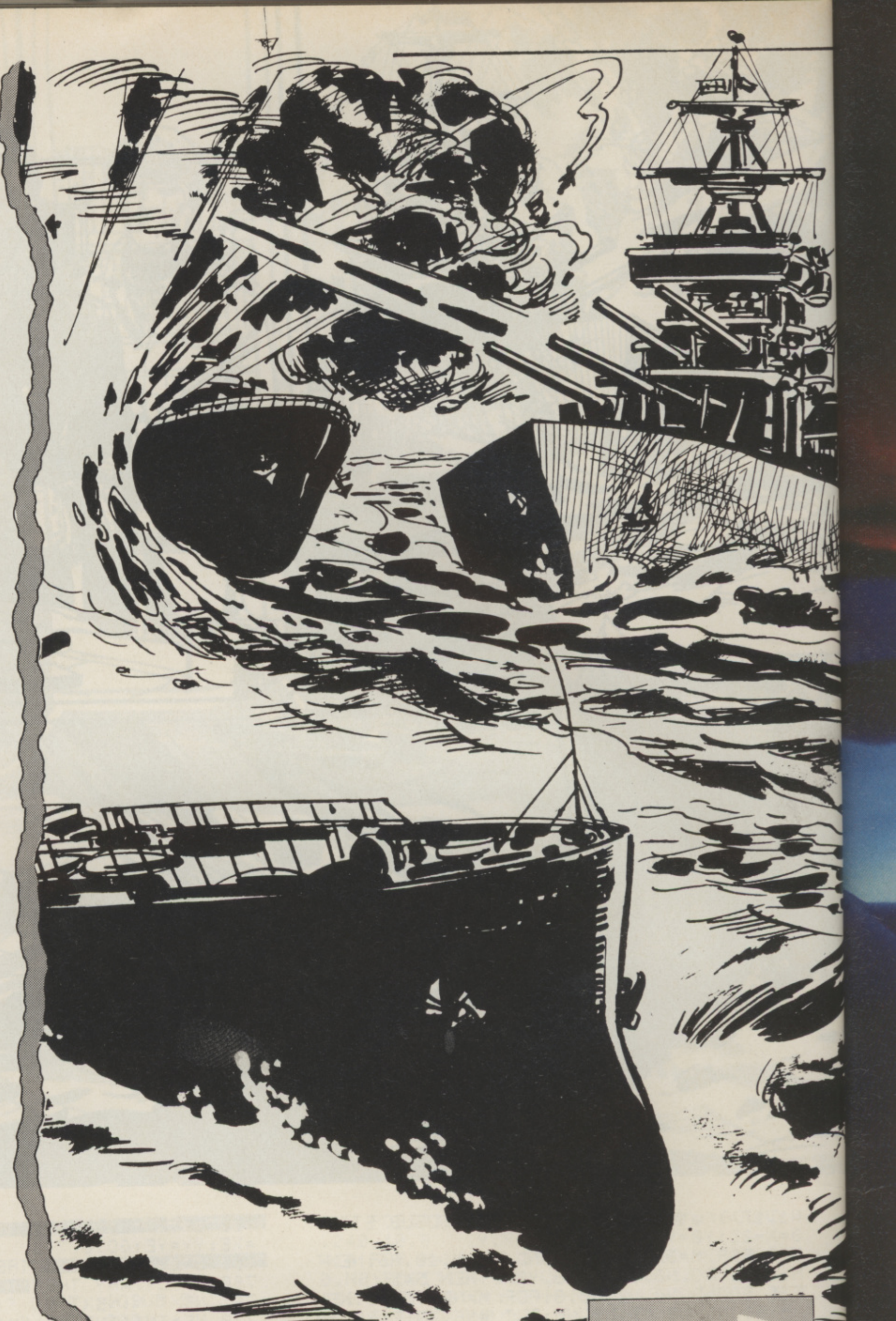
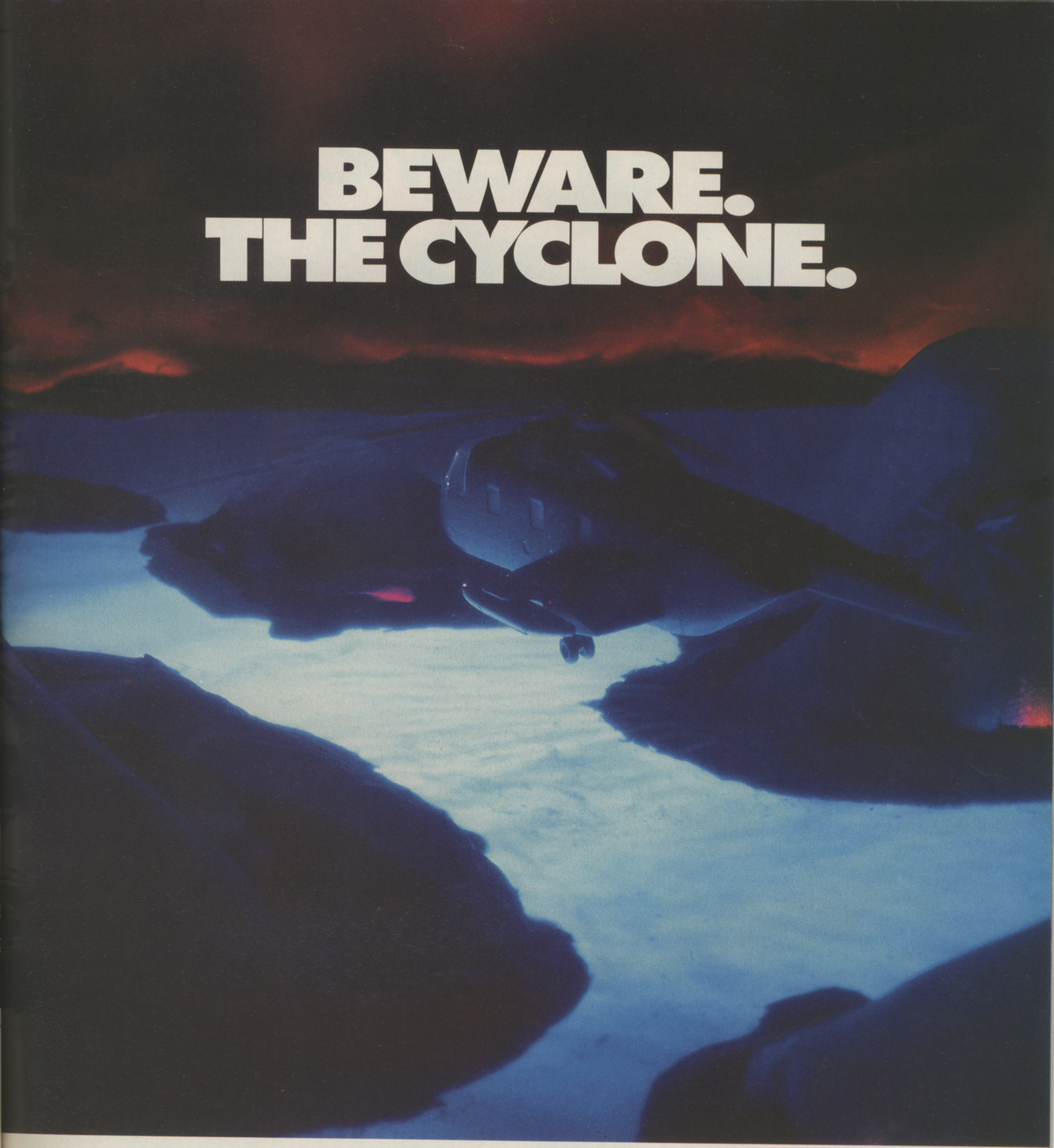


```
930 POSITION 23,20:? COUNT;" SHOTS FIRED
";
950 FOR L=N0 TO N15:SOUND N0,130,10,N6:F
OR N=N0 TO 14:NEXT N:SOUND N0,140,10,N6:
FOR N=N0 TO 14:NEXT N:NEXT L
960 SOUND N0,N0,N0,N0:GOTO 200
4999 REM SHIP
5000 IF SIZE=5 THEN ? "BATTLESHIP";
5010 IF SIZE=4 THEN ? "CRUISER";
5020 IF SIZE=3 THEN ? "DESTROYER";
5030 IF SIZE=N2 THEN ? "[illegible]";
5090 RETURN
5999 REM HIT
6000 SOUND N0,34,N0,14:POKE PC,88:FOR M=
N0 TO 40:POKE PCOLR,INT(RND(N0)*N16)*14:
NEXT M
6020 SIZE=INT(CODE/1000):CODE=CODE-SIZE*
1000:M=INT(CODE):N=(CODE-M)*1000
6040 Y1=INT(M/N16):X1=M-Y1*N16:Y2=INT(N/
N16):X2=N-Y2*N16:POKE PC,N0:SOUND N0,N0,
N0,N0:RETURN
6199 REM PTR
6200 POKE PC,N0:SOUND N0,INT(RND(N0)*200
)+50,10;N2
6210 POKE PX,INT(RND(N0)*N16)*4+130:POKE
 PY,INT(RND(N0)*N16)*8+72:POKE PC,80:RET
URN
6399 REM BUZZ
6400 SOUND N0,120,10,N6:FOR M=N0 TO 35:N
EXT M:SOUND N0,N0,N0,N0:RETURN
6999 REM STIK
7000 POKE PX,46+X*4:POKE PY,48+Y*8:POKE
PC,80:POKE 77,N0:FOR M=N0 TO 14:NEXT M:S
OUND N0,N0,N0,N0
7010 IF  NOT STRIG(N0) THEN RETURN
7020 S=STICK(N0):IF S=N15 THEN 7010
7100 IF S>=5 AND S<=7 THEN X=X+N1:IF X>X
MAX THEN X=XMAX
7120 IF S>=9 AND S<=11 THEN X=X-N1:IF X<
XMIN THEN X=XMIN
7140 IF S=14 OR S=10 OR S=N6 THEN Y=Y-N1
:IF Y<YMIN THEN Y=YMIN
7160 IF S=9 OR S=13 OR S=5 THEN Y=Y+N1:I
F Y>YMAX THEN Y=YMAX
7180 SOUND N0,N0,4,3:GOTO STIK
7999 REM INIT
8000 RAMTOP=106:MYTOP=PEEK(RAMTOP)-8:POK
E RAMTOP,MYTOP:MT=MYTOP*256
8050 READ N0,N1,N2,N6,N15,N16,SHIP,HIT,P
TR,BUZZ,STIK,N10000:DATA 0,1,2,6,15,16,5
000,6000,6200,6400,7000,10000
8100 GRAPHICS N0:N=PEEK(560)+256*PEEK(56
1):POKE 752,N1:POKE N+27,N6:POKE N+28,N6
8120 POKE N+3,70:FOR M=N+N6 TO N+8:POKE
M,N6:NEXT M:FOR M=N+9 TO N+26:POKE M,4:N
EXT M
8140 POKE 708,152:POKE 709,10:POKE 710,1
34:POKE 711,62:POKE 712,146
8200 POSITION N0,N1:? "WAIT":SDMCTL=559:
GRACTL=53277:PCOLR=704:CONSOL=53279
8400 DIM FILL$(17):FOR M=N1 TO 17:READ N
:FILL$(M)=CHR$(N):NEXT M
8410 DATA 104,104,104,133,208,160,0,132,
207,104,104,145,207,200,208,251,96
8420 DIM COPY$(23):FOR M=N1 TO 23:READ N
:COPY$(M)=CHR$(N):NEXT M
8430 DATA 104,104,104,133,206,104,104,13
3,208,160,0,132,205,132,207,177,205,145,
207,200,208,249,96
8500 DIM E(N15,N15),P(N15,N15),S(10),B$(
39):B$(N1)=" ":B$(39)=" ":B$(N2)=B$
8510 FOR M=N0 TO 10:READ N:S(M)=N:NEXT M
:DATA 5,4,4,4,3,3,3,3,2,2,2
9000 FOR M=N0 TO 3:X=USR(ADR(COPY$),224+
M,MYTOP+M):NEXT M
9050 FOR M=32 TO 95:READ N:POKE MT+M,N:N
EXT M:POKE 756;MYTOP
9140 DATA 64,64,64,64,64,64,64,85,106,10
6,106,106,106,106,106,85
9160 DATA 127,127,127,127,127,127,127,85
,64,64,64,64,64,64,64,64
9180 DATA 0,0,0,0,0,0,0,85,0,0,0,0,0,0,0
,64
9200 DATA 62,34,34,34,34,34,62,62,73,235
,126,63,124,254,91,16
9300 X=USR(ADR(FILL$),N6,N0):FOR M=MYTOP
+4 TO MYTOP+7:X=USR(ADR(FILL$),M,N0):NEX
T M
9320 PC=1544:PX=1548:PY=1552:POKE 207,N1
:POKE 1563,128:POKE 1564,142
9350 POKE 1536,MYTOP+4:POKE 54279,MYTOP:
POKE 623,N1:POKE 206,MYTOP
9380 FOR M=1600 TO 1703:READ N:POKE M,N:
NEXT M
9400 DATA 198,207,165,207,208,28,169,14,
133,207,238,26,6,173,26,6,201,2
9410 DATA 208,5,169,0,141,26,6,174,26,6,
189,27,6,141,192,2,173,0
9420 DATA 6,133,204,173,4,6,133,203,169,
0,160,255,200,145,203,192,7,208
9430 DATA 249,173,16,6,141,4,6,133,203,1
73,8,6,133,205,177,205,145,203
9440 DATA 136,16,249,173,12,6,141,0,208,
76,98,228
9450 DATA 104,162,6,160,64,169,7,76,92,2
28
9460 DATA 104,162,228,160,98,169,7,76,92
,228
9500 POKE SDMCTL,62:POKE GRACTL,N2:X=USR
(1684):DIFF=N1
9600 POSITION 4,N0:? "BATTLESHIPS":POSIT
ION N0,N1:? B$;:POSITION N2,N2:? "((((((
(((((((((()  ((((((((((((((((()"
9650 FOR M=N1 TO N16:? "$$$$$$$$$$$$$$$$
'  $$$$$$$$$$$$$$$$'":NEXT M:ESUNK=N0:PS
UNK=N0:POSITION N0,20:? B$;
9700 POSITION 21,N0:PUT #N6,144+PSUNK:PO
SITION 38,N0:PUT #N6,144+ESUNK:RETURN
9899 REM EXIT
9900 X=USR(1694):POKE GRACTL,N0:POKE SDM
CTL,34:FOR M=53261 TO 53265:POKE M,N0:NE
XT M
9960 POKE RAMTOP,MYTOP+8:GRAPHICS N0:END
```

BEWARE.
THE CYCLONE.



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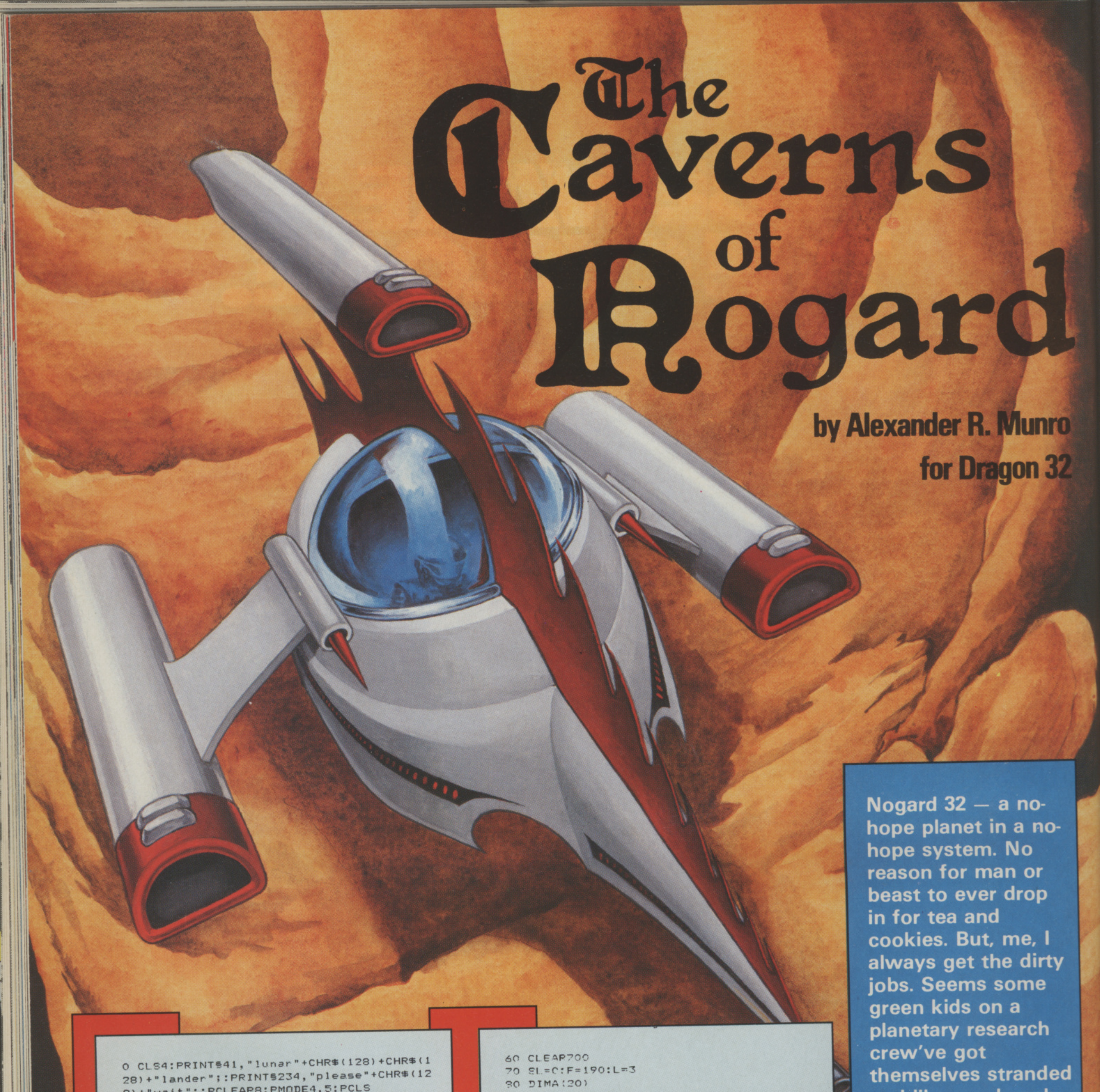
The Caverns of Nogard



by Alexander R. Munro

for Dragon 32

Nogard 32 — a no-hope planet in a no-hope system. No reason for man or beast to ever drop in for tea and cookies. But, me, I always get the dirty jobs. Seems some green kids on a planetary research crew've got themselves stranded and like any bunch of scared rabbits they've gone to earth in a cave system. So the boss says get them out. There's gotta be an easier way to scrape a living . . .

Controls: Joystick Up/Down/ Left/Right

```
0 CLS4:PRINT§41,"lunar"+CHR$(128)+CHR$(1
28)+"lander";:PRINT§234,"please"+CHR$(12
8)+"wait";:PCLEAR8:PMODE4,5:PCLS
1 S$="C5L2D4R2BR2R2U4L2BUD6F2BL6E2U6R2"
2 D$="D12R9BR2U12D12R9U12BR2D12U12F9D3U1
2BR2D12U12R9D12U6L9BR11BD6U12R9D6L9R3F6B
D20D12R9BR2U12R9D12U6L9BR11BD6U12F9D3U12
BR2R9D12L9U12BR11R9L9D6R6L6D6R9BR2U12R9D
6L9R3F6":DRAW"BM20,40"+D$
3 MM$="R2E10R5E6R5F20R4E8R3F20R5F12R5E24
R3E19R5E20F3R4F5R7F21R5F4E12R3E10R5
4 FORI=1TO200:A=RND(255):B=RND(190):PSET
(A,B,5):NEXT:DRAW"BM0,145"+MM$:DRAW"BM0,
146"+MM$:PAINT(10,190),5,5:FORI=0TO255ST
EP2:FORJ=110TO192STEP2:PSET(I,J,0):NEXTJ
,I
5 CIRCLE(200,55),50,5:PAINT(200,55),5,5
6 FORI=150TO255STEP2:FORJ=0TO110STEP2:PS
ET(I,J,0):NEXTJ,I
10 DRAW"BM50,100"+S$
13 COLOR5:LINE(0,180)-(255,192),PSET,BF:
COLOR5
14 DRAW"C0S8"
15 DRAW"BM1,181RGD2FBR2U4R3L3D4R3BR2EU2H
BR4R3L3D4R3BR2U4R3D4L3BR5U4R3D2L3BR7BD2U
2H2F2E2BR2D4U4R3D2L3RF2BR3U4BR3R3L3D4R3U
2L2BR4BD2U4D2R3U2D4BR4U4L2R3BR4BD4U4R3D4
U2L3R3BR2BD2U4R3D2L3RF2BR2U4F2E2D4BR4BU4
R3L3D2R3D2L3BR5U4R3D4L3BR5U2R2L2U2R3BR2R
3L2D4BR4U4D4
16 DRAW"E2F2U4BR2D4U4R3D4U2L3R3BR2BD2U4R
3D2L3RF2BR2R3L3U2R2L2U2R3BR3GD2FBR2R3L3U
4R3BR2FD2GC5"
```

```
60 CLEAR700
70 SL=0:F=190:L=3
80 DIMA(20)
90 POKE65495,0
99 DRAW"S4C5"
100 CLS4:PRINT§42,"lunar"+CHR$(128)+"lan
der";
110 PRINT§230,"instructions"+CHR$(128)+"
y"+CHR$(128)+"or"+CHR$(128)+"n";
120 A$=INKEY$:IFA$=""THEN120
130 IFA$="Y" THEN 850
140 IFA$="N"THENPMODE4,5:SCREEN1,1:FORP=
1TO1000:NEXT:GOTO160
150 GOTO120
160 PMODE4,1:PCLS
170 DRAW"BM5,3L2D4R2BR2R2U4L2BUD6F2BL6E2
U6R2"
180 GET(0,0)-(12,12),A,G
190 PCLS
200 M$="E8R3F12R4E3R3E8R4E10R4E15R4F5R4E
3R4F7R3E29R4F15R4F6R2F16R4E16R4F3D7R3D10
G18L5G3L18G5L5H10L5H3L9G3L25G3L20G3D3L28
G34D4F3D5F6D38F4R3F4R35E5R5E6R25F4R39F3R
40F4R4F5R4E5F5R15E5U3E3U2H7L4H6L15H2L12H
3L8H4L29H2L45H2L34G10L6U10H3U3H3U25E6R50
E4R5E5R4F6R8
210 M2$="R54F5R4E10R9F3R3U4E3U4H5U3E16U4
E3U4HUHU8E15F3
220 DRAW"BM0,70"+M$:DRAW"BM0,71"+M$:DRAW
"BM1,70"+M$:DRAW"BM134,105"+M2$:DRAW"BM1
34,106"+M2$:DRAW"BM135,105"+M2$
230 DRAW"BM66,119R3L3D2R2L2D2BR5U4D4R3U4
```

```
240 DRAW"BM63,134D4R3BR3U4BR3D3FREU3BR2R
3L3D2R2L2D2R3BR2BU4BR3L3D2R3D2L3"
245 S$="L2D4R2BR2R2U4L2BUD6F2BL6E2U6R2"
250 DRAW"BM94,134C5"+S$:DRAW"BM110,134"+
S$:DRAW"BM126,134"+S$
260 IFL<=2THENCOLOR0:LINE(122,130)-(134,
142),PSET,BF:COLOR5
270 IFL=1THENCOLOR0:LINE(106,130)-(118,1
42),PSET,BF:COLOR5
280 X=10:Y=10
290 SCREEN1,1
300 PUT(X,Y)-(X+12,Y+12),A,PSET
310 IFJOYSTK(0)<20THEN X=X-2ELSEIFJOYSTK
(0)>40THEN X=X+2
320 IFJOYSTK(1)<20THEN Y=Y-2ELSEIFJOYSTK
(1)>40THENY=Y+2
330 IFX<2THENX=2
340 IFY<2THENY=2
350 IFX>240THENX=240
360 REM ***DETECT CRASH***
370 IFPPOINT(X,Y)=5THENGOSUB520
380 IFPPOINT(X+12,Y)=5THENGOSUB520
390 IFPPOINT(X+12,Y+12)=5THENGOSUB520
400 IFPPOINT(X,Y+12)=5THENGOSUB520
410 IFPPOINT(X-1,Y+6)=5THENGOSUB520
420 IFPPOINT(X+13,Y+6)=5THEN GOSUB520
430 REM ***SAFE LANDING***
440 IFSL=0ANDX>222ANDY>171THENGOSUB630
450 IFSL=1ANDX<10ANDY<10THEN740
460 REM ***FUEL***
470 LINE(90,120)-(F,122),PSET,BF
480 LINE(190,120)-(F,122),PRESET,BF
490 F=F-.125
500 IF F<90THEN690
510 GOTO300
520 REM ***CRASH***
530 PLAY"T25505D#E#A#F#03D#E#A#F#01D#E#A
#F#"
540 PUT(X,Y)-(X+12,Y+12),A,PSET:FORI=1TO
12:CIRCLE(X+6,Y+6),I,5:NEXT:FORI=1TO12:C
IRCLE(X+6,Y+6),I,0:NEXT
545 FORI=1TO5:PMODE4,I:SCREEN1,1:FORP=1T
0100:NEXT:NEXTI
550 SL=0:L=L-1:X=10:Y=10:F=190
560 IFL=0THENFORP=1TO1000:NEXT:GOTO590
565 PMODE4,5:SCREEN1,1
566 FORP=1TO20:PLAY"T25502CDEEDC01C":NEX
T
570 GOTO160
590 REM ***OUT OF LIVES***
600 CLS:PRINT§42,"lunar lander";:PRINT§9
6."(C) COPYRIGHT A.R.M.SOFTWARE (C)"
610 PRINT§160,"  YOU HAVE RUN OUT OF LIV
ES"
620 GOTO790
630 REM ***SAFE LANDING***
640 SL=1
650 FORI=1TO3
660 PLAY"T255;05;V31;12;11;10;9;8;7;6;5;
4;3;2;1;04;12;11;10;9;8;7;6;5;4;3;2;1;03
;12;11;10;9;8;7;6;5;4;3;2;1;02;12;11;10;
9;8;7;6;5;4;3;2;1;01;12;11;10;9;;7;6;5;4
;3;2;1"
670 NEXT
680 SL=1:RETURN
690 REM ***OUT OF FUEL***
700 PLAY"T25505BAGFEDC04BAGFEDC03BAGFEDC
02BAGFEDC01BAGFEDC"
710 CLS:PRINT§42,"lunar lander":PRINT§96
,"(C) COPYRIGHT A.R.M.SOFTWARE (C)"
720 PRINT§160,"  YOU HAVE RUN OUT OF FUE

730 GOTO790
740 REM ***COMPLETED MISSION***
750 FORI=1TO60:PLAY"T25503V"+STR$(RND(30
)+1)+";"+STR$(RND(11)+1):NEXT
760 CLS:PRINT§42,"lunar lander";:PRINT§9
6,"(C) COPYRIGHT A.R.M.SOFTWARE (C)"
770 PRINT§171,"WELL DONE","YOU HAVE COMP
LETED THE MISSION."
780 GOTO790
790 REM ***ANOTHER GAME***
```

```
800 PRINT§480,"DO YOU WANT ANOTHER GAME
(Y/N)":
810 A$=INKEY$:IFA$=""THEN810
820 IFA$="Y"THENCLS4:F=190:L=3:X=10:Y=10
:PMODE4,5:SCREEN1,1:FORP=1TO1000:NEXT:GO
TO160
830 IFA$="N"THENPOKE65494,0:CLS:END
840 GOTO810
850 REM ***INSTRUCTIONS***
860 CLS:PRINT§42,"lunar lander":PRINT§96
,"(C) COPYRIGHT A.R.M.SOFTWARE (C)"
870 PRINT§160,"TWO MONTHS AGO THE CREW O
F A     RESEARCH CRAFT WENT TO SCOUT    T
HE PLANET NOGARD 23 OF THE      DELTA SYS
TEM BUT NEVER CAME BACKIT WAS FOUND OUT
THAT THERE SHIP HAD CRASHED AND THE SUPV
IVORS  HAD GONE DOWN A GREAT CRATER TO F
IND";
880 PRINT" SHELTER."
890 PRINT§480,"PRESS A KEY TO CONTINUE..
.....";
900 A$=INKEY$:IFA$=""THEN900
910 PRINT§160,STRING$(255," "):
920 PRINT§160," YOUR MISSION IS TO WEAVE
 YOUR  WAY THROUGH THE CAVE SYSTEM OF  T
HE CRATER ALL THE WAY TO THE   BOTTOM,LA
ND AND GET BACK OUT     AGAIN.CAN YOU DO
ALL THIS WITH  ONLY 3 LIVES AND A LIMITE
D      SUPPLY OF FUEL?"
930 PRINT" CONTROL IS BY A RIGHT HAND JO
Y-STICK."
940 A$=INKEY$:IFA$=""THEN940
941 PRINT§160,STRING$(255," "):PRINT§416
,STRING$(10," "):PRINT§160,"REMEMBER ALS
O THAT THE PLANETS  CAVE SYSTEM AND OUTE
R CRUST HAVEA STRONG MAGNETIC FORCE,SO D
ON'TGET TOO CLOSE TO THE WALLS OR   THE
LANDSCAPE."
942 PRINT§480,"PRESS A KEY TO START.....
....  ";:
943 A$=INKEY$:IFA$=""THEN943
950 PMODE4,5:SCREEN1,1:GOTO160
```

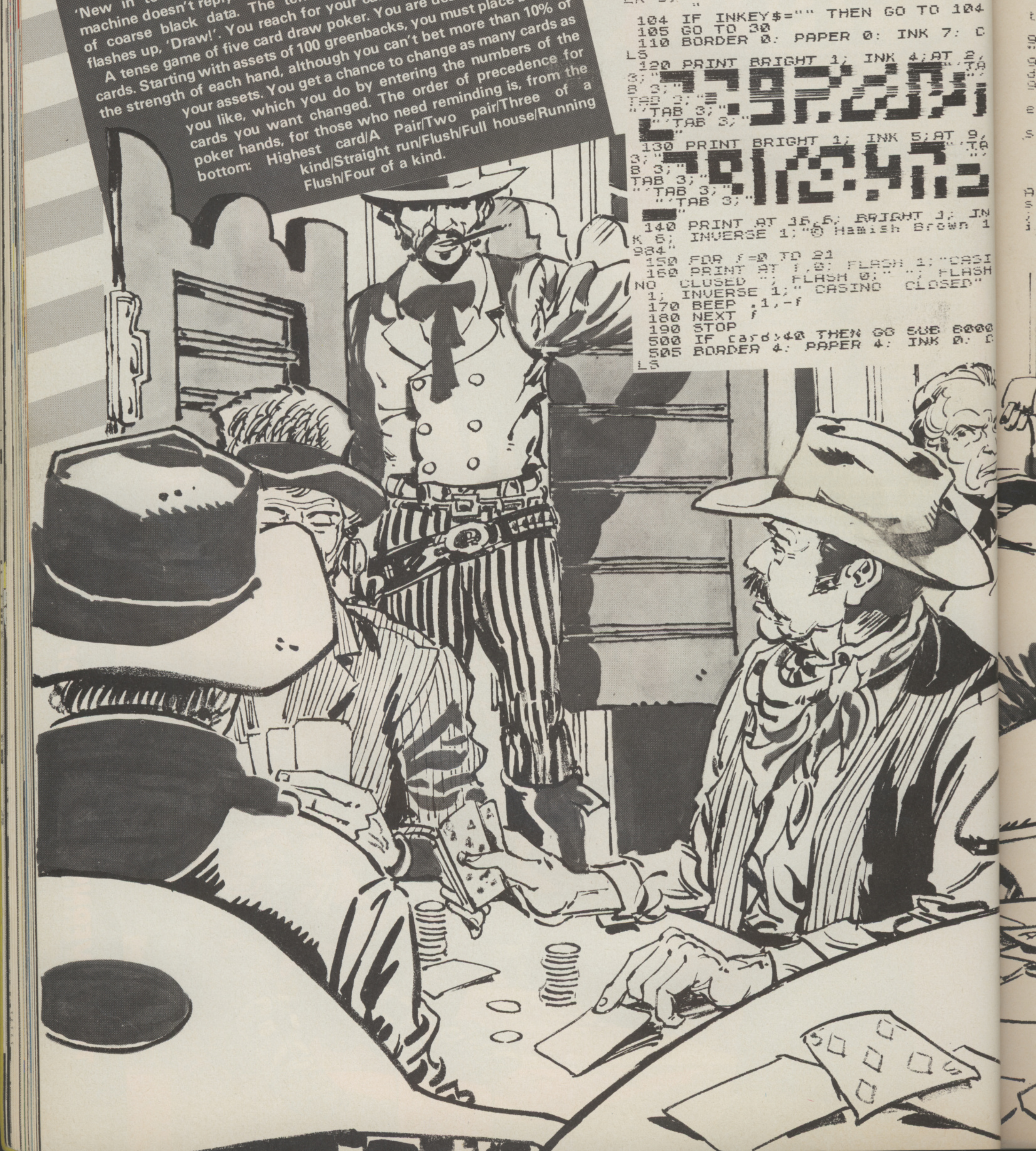
DRAW!!

for Spectrum from Hamish Brown

'New in town, huh stranger!'. For an instant the sinister black machine doesn't reply. Perhaps it's chewing thoughtfully over a wad of coarse black data. The tension breaks, the stranger's screen flashes up, 'Draw!'. You reach for your cards . . .

A tense game of five card draw poker. You are dealt a hand of five cards. Starting with assets of 100 greenbacks, you must place bets on the strength of each hand, although you can't bet more than 10% of your assets. You get a chance to change as many cards as you like, which you do by entering the numbers of the cards you want changed. The order of precedence for poker hands, for those who need reminding is, from the bottom: Highest card/A Pair/Two pair/Three of a kind/Straight run/Flush/Full house/Running Flush/Four of a kind.

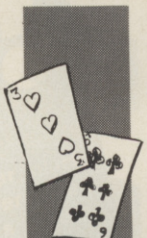
```
   0>REM © Hamish Brown 1984
   2 DEF FN c(x)=CODE d$(x)-48-7
*(d$(x)>"9")
  10 GO SUB 9000
  20 GO SUB 8000
  30 GO SUB 500
  40 GO SUB 800
  50 FOR d=1 TO 2
  60 GO SUB 2000: GO SUB 2070
  70 NEXT d
  80 GO SUB 2145
  85 INVERSE 0
  90 IF amount<1 THEN GO TO 7500
 100 IF amount>9999 THEN GO TO 7
700
 102 PRINT AT 11,0; FLASH 1; PAP
ER 5;"        PRESS ANY KEY TO DEAL
      "
 104 IF INKEY$="" THEN GO TO 104
 105 GO TO 30
 110 BORDER 0: PAPER 0: INK 7: C
LS
 120 PRINT BRIGHT 1; INK 4;AT 2,
3;"                         "'TA
B 3;"
TAB 3;"
"'TAB 3;"
"'TAB 3;"
"
 130 PRINT BRIGHT 1; INK 5;AT 9,
3;"                         "'TA
B 3;"
TAB 3;"
"'TAB 3;"
 "'TAB 3;"
"
 140 PRINT AT 16,6; BRIGHT 1; IN
K 6; INVERSE 1;"© Hamish Brown 1
984"
 150 FOR f=0 TO 21
 160 PRINT AT f,0; FLASH 1;"CASI
NO  CLOSED "; FLASH 0;" "; FLASH
 1; INVERSE 1;" CASINO  CLOSED"
 170 BEEP .1,-f
 180 NEXT f
 190 STOP
 500 IF card>40 THEN GO SUB 6000
 505 BORDER 4: PAPER 4: INK 0: C
LS
```

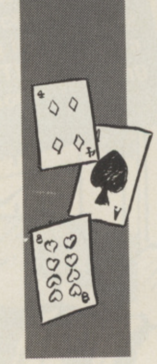


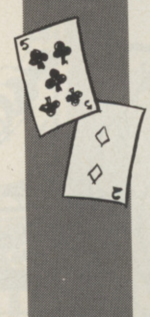
```
 510 PRINT PAPER 0; INK 7;AT 0,1
;"YOUR HAND:";AT 12,1;"MY HAND:"
 520 LET down=1: GO SUB 8100
 530 LET down=13: GO SUB 8150
 540 LET y=1: LET back=0
 550 FOR d=1 TO 2
 560 LET x=1
 570 FOR t=1 TO 5
 580 LET card=card+1
 590 LET h(t,d)=c(card)*10+1
 600 LET temp=c(card)
 610 GO SUB 8200
 620 PRINT AT 10,x;t
 630 LET x=x+2
 640>NEXT t
 650 LET y=13: LET back=1
 660 NEXT d
 665 LET d=1: LET may=INT (amoun
t/10): IF may<1 THEN LET may=1
 670 PRINT PAPER 1; INK 7;AT 1,1
9;"You have";AT 2,19;"£";amount;
".";AT 3,19;"You may bet";AT 4,1
9;"£";may;".";AT 6,19;"How much
do";AT 7,19;"you want to";AT 8,1
9;"bet?"
 680 INPUT AT 0,19;"Stake>";stak
e
 690 IF stake<1 OR stake>may OR
stake<>INT stake THEN GO TO 680
 695 LET amount=amount-stake
 700 LET down=1: GO SUB 8100
 710 PRINT AT 1,19; PAPER 1; INK
 7;"AMOUNT:£";amount;AT 2,19;"ST
AKE :£";stake;AT 4,19;"Enter no(
s)";AT 5,19;"of card(s)";AT 6,19
;"you want to";AT 7,19;"swap (0
if";AT 8,19;"none)."
 720 INPUT AT 0,19;"Cards>";b
 730 LET down=3: GO SUB 8100
 740 IF b=0 THEN RETURN
 750 LET true=1: LET m=b: LET y=
1
 760 GO SUB 6000
 770 IF NOT true THEN PRINT AT 4
,19; PAPER 1; INK 7;"INVALID";AT
 5,19;"REPLY - try";AT 6,19;"aga
in.": GO TO 720
 780 RETURN
 800 LET down=13: GO SUB 8500
 801 LET y=13: LET x=1: LET back
=0
 802 FOR t=1 TO 5
 804 LET temp=INT (h(t,2)/10): G
O SUB 8200: LET x=x+2
 806 NEXT t
 808 LET d=2
 810 GO SUB 2000: GO SUB 2070
 820 PRINT AT 13,19; PAPER 6;"I
change";AT 14,19;
 830 IF x(2)<6 THEN PRINT PAPER
6;"none.": LET chra=0: RETURN
 840 IF x(2)=9 AND t4<>0 THEN LE
T g=t4
 850 IF x(2)=9 AND gs<>0 THEN LE
T g=gs
 860 LET q$=STR$ q: LET g$=STR$
g
 870 LET b=0
 880 FOR t=1 TO LEN STR$ g
 885 LET i=VAL g$(t)
 886 LET h(i,d)=h(i,d)+10+VAL q$
(i)
 890 LET q$(i)="0"
 900 NEXT t
 910 FOR t=1 TO 5
 920 IF q$(t)<>"0" THEN LET b=b*
10+VAL q$(t)
 930 NEXT t
 935 GO SUB 7000
 940 IF b<10 THEN PRINT PAPER 6;
"card ";b;"."
```

CONTINUED ON NEXT PAGE

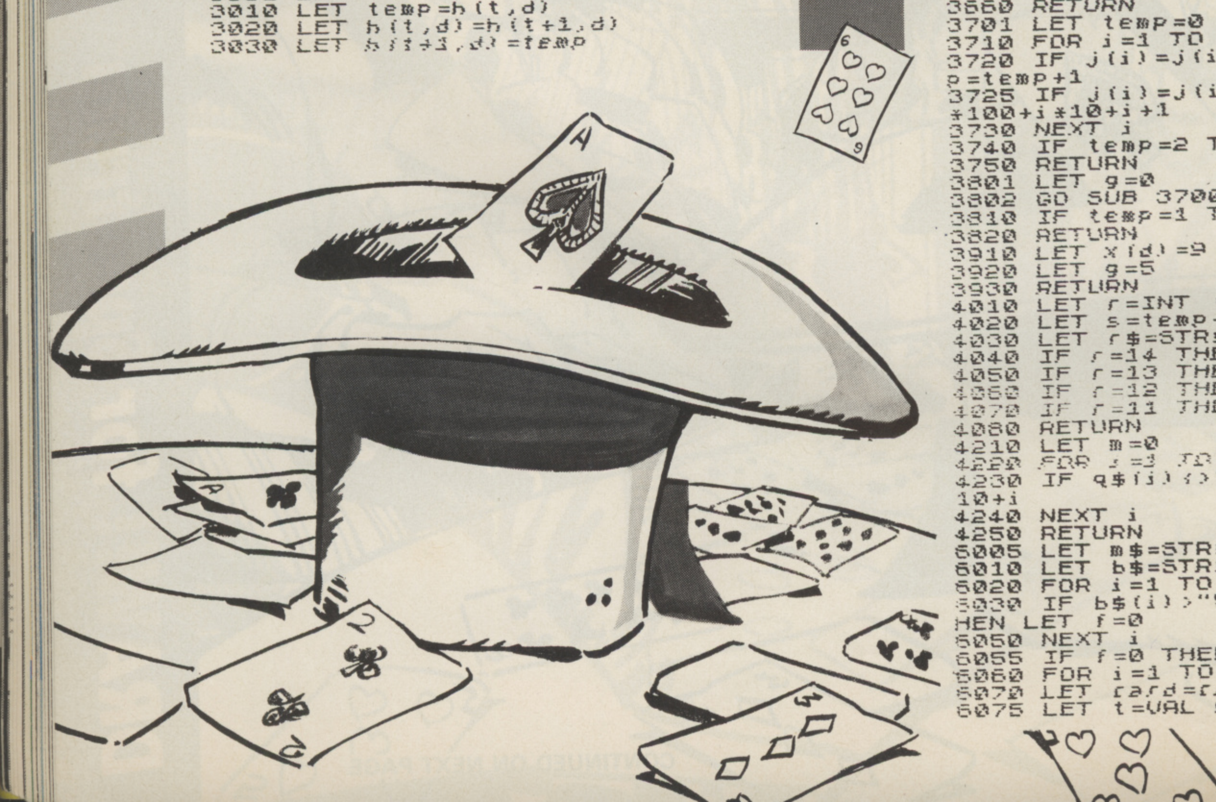
```
 950 IF b>10 THEN PRINT PAPER 6;
"cards ";b;"."
 955 GO SUB 4200
 960 LET v=9
 970 GO SUB 6000
 980 RETURN
2010 FOR f=1 TO 1
2020 FOR t=1 TO 4
2030 IF h(t,d)>h(t+1,d) THEN GO
SUB 3000
2040 NEXT t
2050 NEXT f
2065 RETURN
2080 LET x(d)=0
2085 LET q=0
2090 LET g=0
2091 FOR i=1 TO 5
2092 LET j(i)=INT (h(i,d)/100)
2093 LET temp=h(i,d)
2094 LET h(i,d)=INT (h(i,d)/10)
2095 LET q=q*10+temp-h(i,d)*10
2097 NEXT i
2100 FOR c=1 TO 9
2110 GO SUB (3000+c*100)
2120 IF x(d)<>0 THEN LET c=9
2130 NEXT c
2135 LET g$=STR$ g
2137 LET y(d)=j(VAL g$(LEN g$))
2140 RETURN
2145 LET down=4: GO SUB 8100: LE
T down=13: GO SUB 8150
2150 LET d$="You": LET y=4: PAPE
R 1: INK 7
2160 FOR d=1 TO 2
2170 PRINT AT y,19;d$;" have";AT
 y+1,19;
2180 IF x(d)=9 THEN LET temp=h(5
,d): GO SUB 4000: PRINT r$;" HIG
H."
2190 IF x(d)<>9 THEN PRINT h$(x(
d)): IF x(d)=1 THEN PRINT AT y+2
,19;"FLUSH"
2200 LET d$="I": LET y=13: PAPER
 6: INK 0
2210 NEXT d
2220 INVERSE 1: PRINT AT 16,19;
2230 IF x(1)>x(2) OR (y(1)<y(2)
AND x(1)=x(2)) THEN GO TO 2400
2240 IF x(1)<x(2) OR (y(1)>y(2)
AND x(1)=x(2)) THEN GO TO 2600
2250 PRINT "DRAW - your";AT 17,1
9;"money is";AT 18,19;"returned.
"
2260 LET amount=amount+stake
2280 RETURN
2400 PRINT "YOU LOSE"
2410 BEEP .25,-12: BEEP .5,-24
2420 LET win=stake*o(x(2))
2430 LET amount=amount-win
2440 LET odds=o(x(2))
2450 GO TO 2650
2600 PRINT "YOU WIN"
2610 BEEP .5,24
2620 LET win=stake*o(x(1))
2630 LET amount=amount+win+stake
2640 LET odds=o(x(1))
2650 PRINT AT 17,19;"£";stake;"
at";AT 18,19;odds;" to 1 =";AT 1
9,19;"£";win
2660 RETURN
3001 LET f=0
3010 LET temp=h(t,d)
3020 LET h(t,d)=h(t+1,d)
3030 LET h(t+1,d)=temp
```



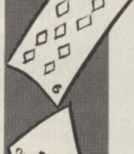


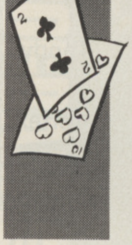


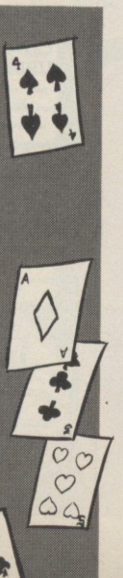
```
3040 RETURN
3101 GO SUB 3400
3110 IF x(d)=0 THEN RETURN
3111 LET x(d)=0
3120 GO SUB 3500
3150 IF x(d)=0 THEN RETURN
3160 LET x(d)=1
3170 LET· g=12345
3180 RETURN
3201 FOR i=1 TO 2
3210 IF j(i)=j(i+1) AND j(i+2)=j
(i+3) AND j(i+1)=j(i+2) THEN GO
TO 3240
3220 NEXT i
3230 RETURN
3240 LET x(d)=2
3250 LET g=i*1000+(i+1)*100+(i+2
)*10+i+3
3260 RETURN
3301 GO SUB 3600
3310 IF x(d)=0 THEN RETURN
3311 LET x(d)=0
3320 GO SUB 3700
3321 LET x(d)=0
3330 IF temp=3 THEN LET x(d)=3:
LET g=12345
3340 RETURN
3401 FOR i=1 TO 4
3402 LET t(i)=0
3403 NEXT i
3404 LET s4=0
3405 LET gs=0
3410 FOR i=1 TO 5
3420 LET k(i)=h(i,d)-j(i)*10
3430 LET t(k(i))=t(k(i))+1
3440 NEXT i
3450 FOR i=1 TO 4
3460 IF t(i)=5 THEN LET x(d)=4
3465 IF t(i)=4 THEN LET s4=i
3470 NEXT i
3471 IF x(d)=4 THEN LET g=12345
3472 IF s4=0 THEN RETURN
3480 FOR i=1 TO 5
3482 IF k(i)=s4 THEN LET gs=gs*1
0+i
3483 NEXT i
3484 RETURN
3505 LET t4=0
3510 IF j(1)+4=j(2)+3 AND j(3)+2
=j(4)+1 AND j(5)=j(1)+4 AND j(2)
+3=j(3)+2 THEN LET x(d)=5
3520 IF j(5)=14 AND j(1)=2 AND j
(2)=3 AND j(3)=4 AND j(4)=5 THEN
 LET x(d)=5
3530 IF j(1)+3=j(2)+2 AND j(3)+1
=j(4) AND j(2)+2=j(3)+1 THEN LET
 t4=1234
3540 IF j(2)+3=j(3)+2 AND j(4)+1
=j(5) AND j(3)+2=j(4)+1 THEN LET
 t4=2345
3550 IF j(5)=14 AND j(1)=2 AND j
(2)=3 AND j(3)=4 THEN LET t4=123
5
3560 IF x(d)=5 THEN LET g=12345
3570 RETURN
3601 FOR i=1 TO 3
3610 IF j(i)=j(i+1) AND j(i)=j(i
+2) THEN GO TO 3640
3620 NEXT i
3630 RETURN
3640 LET x(d)=6
3650 LET g=i*100+(i+1)*10+i+2
3660 RETURN
3701 LET temp=0
3710 FOR i=1 TO 4
3720 IF j(i)=j(i+1) THEN LET tem
p=temp+1
3725 IF j(i)=j(i+1) THEN LET g=g
*100+i*10+i+1
3730 NEXT i
3740 IF temp=2 THEN LET x(d)=7
3750 RETURN
3801 LET g=0
3802 GO SUB 3700
3810 IF temp=1 THEN LET x(d)=8
3820 RETURN
3910 LET x(d)=9
3920 LET g=5
3930 RETURN
4010 LET r=INT (temp/10)
4020 LET s=temp-r*10
4030 LET r$=STR$ r
4040 IF r=14 THEN LET r$="ACE"
4050 IF r=13 THEN LET r$="KING"
4060 IF r=12 THEN LET r$="QUEEN"
4070 IF r=11 THEN LET r$="JACK"
4080 RETURN
4210 LET m=0
4220 FOR i=1 TO 5
4230 IF q$(i)<>"0" THEN LET m=m*
10+i
4240 NEXT i
4250 RETURN
6005 LET m$=STR$ m
6010 LET b$=STR$ b
6020 FOR i=1 TO LEN STR$ b
6030 IF b$(i)>"5" OR b$(1)<"1" T
HEN LET f=0
6050 NEXT i
6055 IF f=0 THEN RETURN
6060 FOR i=1 TO LEN STR$ b
6070 LET card=card+1
6075 LET t=VAL m$(i)
```



```
6080 LET h(t,d)=c(card)*10+t
6090 LET temp=c(card)
6100 NEXT j
6130 LET x=1: LET y=1+12*(d=2):
LET back=0
6140 LET down=y: GO SUB 8500
6145 GO SUB 2000
6150 FOR t=1 TO 5
6160 LET temp=INT (h(t,d)/10)
6170 GO SUB 8200
6175 LET x=x+2
6180 NEXT t
6190 RETURN
7010 LET b$=STR$ b
7020 LET u=b
7030 FOR f=1 TO 1
7040 FOR t=1 TO LEN STR$ u-1
7050 IF b$(t)>b$(t+1) THEN GO SU
B 7100
7060 NEXT t
7070 NEXT f
7080 LET b=VAL b$(1 TO LEN STR$
u)
7090 RETURN
7105 LET f=0
7110 LET t$=b$(t)
7120 LET b$(t)=b$(t+1)
7130 LET b$(t+1)=t$
7140 RETURN
7500 BORDER 1: PAPER 1: INK 7: C
LS
7510 PRINT AT 10,7; FLASH 1;"YOU
 ARE BROKE"
7520 FOR f=0 TO -30 STEP -1
7530 BEEP .1,f
7540 NEXT f
7550 PRINT AT 16,3;"DO YOU WANT
ANOTHER GAME ?"
7555 LET i$=INKEY$
7560 IF i$="y" OR i$="Y" THEN LE
T amount=100: GO TO 20
7570 IF i$="n" OR i$="N" THEN GO
 TO 110
7580 GO TO 7555
7700 BORDER 1: PAPER 1: INK 7: C
LS
7710 PRINT AT 10,4; FLASH 1;"YOU
'VE BROKEN THE BANK!"
7720 FOR f=1 TO 3
7730 FOR g=10 TO 20
7740 BEEP .01,f+g
7750 NEXT g
7760 NEXT f
7770 PRINT AT 16,3;"DO YOU WANT
ANOTHER GAME ?"
7780 LET i$=INKEY$
7790 IF i$="y" OR i$="Y" THEN LE
T amount=100: GO TO 20
7800 IF i$="n" OR i$="N" THEN GO
 TO 110
7810 GO TO 7780
8000 BORDER 4: PAPER 4: INK 0: C
LS
8005 PRINT AT 10,11; FLASH 1; IN
K 2; PAPER 7;"SHUFFLING"
8009 FOR g=1 TO 2
8010 FOR f=1 TO 52
8020 LET rnd=INT (RND*52)+1
8030 LET temp=c(rnd)
8040 LET c(rnd)=c(f)
8050 LET c(f)=temp
8060 BEEP .01,(53-f AND g=1)+(f
AND g=2)
8070 NEXT f
8071 NEXT g
8075 LET card=0
8080 CLS
8090 RETURN
8100 FOR f=down TO 9
8110 PRINT AT f,19; PAPER 1;"
        "
8120 NEXT f
8130 INK 7: PLOT 151,168: DRAW 9
7,0: DRAW 0,-73: DRAW -97,0: DRA
W 0,73: INK 0
8140 RETURN
8150 FOR f=down TO 21
8160 PRINT AT f,19; PAPER 6;"
        "
8170 NEXT f
8180 PLOT 151,72: DRAW 97,0: DRA
W 0,-72: DRAW -97,0: DRAW 0,72
8190 RETURN
8200 LET rank=INT (temp/10)
8210 LET suit=temp-rank*10
8220 LET d$="▌        ": IF back T
HEN LET d$="▒▒▒▒▒▒▒▒▒"
8230 PAPER 7
8240 FOR f=y TO y+8
8250 PRINT AT f,x;d$
8260 NEXT f
8270 IF back THEN GO TO 8420
8280 INK 2*(suit=2 OR suit=3)
8290 LET t$=s$(suit): LET v$=u$(
rank-1)
8300 PRINT AT y+1,x+1;t$;AT y+7,
x+5;t$
8310 PRINT AT y+2,x+1;v$;AT y+6,
x+5;v$
8320 IF rank>6 AND rank<11 THEN
PRINT AT y+1,x+2;t$;" ";t$;AT y+
7,x+2;t$;" ";t$
8330 IF rank>3 AND rank<7 THEN P
RINT AT y+2,x+2;t$;" ";t$;AT y+6
,x+2;t$;" ";t$
8340 IF rank=10 OR rank=2 OR ran
k=3 THEN PRINT AT y+2,x+3;t$;AT
y+6,x+3;t$
8350 IF rank>7 AND rank<11 THEN
PRINT AT y+3,x+2;t$;" ";t$;AT y+
5,x+2;t$;" ";t$
8360 IF rank=6 THEN PRINT AT y+4
,x+2;t$;" ";t$
8370 IF rank=14 OR rank=3 OR ran
k=5 OR rank=9 THEN PRINT AT y+4,
x+3;t$
8380 IF rank=7 THEN PRINT AT y+3
,x+3;t$;AT y+5,x+2;t$;" ";t$
8390 IF rank=11 THEN PRINT AT y+
3,x+4;"▐";AT y+4,x+2;"▖ ▐";AT y+
5,x+2;"▀▀▘"
8400 IF rank=12 THEN PRINT AT y+
3,x+2;"▛▀▖";AT y+4,x+2;"▌▖▐";AT
y+5,x+2;"▝▀▀";AT y+6,x+4;"▝"
8410 IF rank=13 THEN PRINT AT y+
3,x+2;"▌▞▘";AT y+4,x+2;"▛▖";AT y
+5,x+2;"▌ ▚"
8420 PAPER 4: INK 0
8430 RETURN
8500 FOR f=down TO down+8
8510 PRINT AT f,1; PAPER 4;"
        "
8520 NEXT f
8530 RETURN
9000 BORDER 0: PAPER 0: INK 7: C
LS
9005 PRINT AT 10,10; FLASH 1;"PL
EASE WAIT!"
9010 RESTORE
9020 FOR f=USR "a" TO USR "i"+7
9030 READ a: POKE f,a: NEXT f
9040 LET d$="2100580100037ECB772
007230B78B1C818F43CFE4720023E447
718EF"
9050 LET addr=50000
9060 FOR f=1 TO LEN d$ STEP 2
9070 LET a=FN c(f): LET b=FN c(f
+1)
9080 POKE addr,16*a+b
9090 LET addr=addr+1
9100 NEXT f
9110 DIM y(2): DIM x(2): DIM o(9
): DIM h(5,2): DIM j(5): DIM t(4
): DIM k(5): DIM c(52): LET amou
nt=100
9115 FOR f=1 TO 9: LET o(f)=20-(
f*2): NEXT f
9120 DIM h$(8,10): LET card=0: L
ET s$="♣♦♥♠": LET u$="23456789⑩J
QKA"
9125 FOR f=1 TO 8: READ h$(f): N
EXT f
9130 FOR s=1 TO 4
9150 FOR f=2 TO 14
9160 LET card=card+1
9170 LET c(card)=10*f+s
9180 NEXT f: NEXT s
9185 CLS
9190 PRINT BRIGHT 1; INK 4;AT 2,
3;"▀▀█▀▀█▀▀▀▀▄▀█▀▀█▀▌"'TA
B 3;"▀▀█▀▀█▀▀▀▀▄▀█▀▀█"'
TAB 3;"█▀██▀█▀▀▀█▀▀▀█▀▀█▀▐
"'TAB 3;"██▀▀█▀▀▀█▀█▀▀▀█▐
█"'TAB 3;"▀▀▀▀▀▀▀▀▀▀▀▀▀▀
▀"
9200 PRINT BRIGHT 1; INK 5;AT 9,
3;"▀▀█▀▀▀█▀▀▀▀▀▀▀▀▀"'TA
B 3;"▀▀█▀█▀▀█▀▀▀█▀█▀"'
TAB 3;"▀██▀█▀▀▀█▀▀█▀▀▀█
"'TAB 3;"█▀▀█▀▀▀█▀▀▀▀▀▀▀
 "'TAB 3;"▀▀▀▀▀▀▀▀▀▀▀▀▀▀
▀"
9210 PRINT AT 16,6; BRIGHT 1; IN
K 6; INVERSE 1;"© Hamish Brown 1
984"
9220 PRINT AT 20,5;"PRESS ANY KE
Y TO PLAY"
9230 LET tone=20
9240 BEEP .1,tone
9250 LET tone=tone-1: IF tone<10
 THEN LET tone=20
9260 LET l=USR 50000
9270 IF INKEY$="" THEN GO TO 924
0
9290 RETURN
9900 DATA 0,108,254,254,124,124,
56,16
9910 DATA 0,56,56,16,214,254,214
,16
9920 DATA 0,16,56,124,254,124,56
,16
9930 DATA 0,16,56,124,254,254,21
4,16
9940 DATA 170,85,170,85,170,85,1
70,85
9950 DATA 170,170,85,85,170,170,
85,85
9960 DATA 152,164,164,164,164,16
4,164,152
9970 DATA 128,128,128,128,128,12
8,128,128
9980 DATA 170,170,213,213,170,17
0,213,213
9990 DATA "STRAIGHT","FOURS","FU
LL HOUSE","FLUSH","STRAIGHT","TH
REES","TWO PAIRS","ONE PAIR"
```







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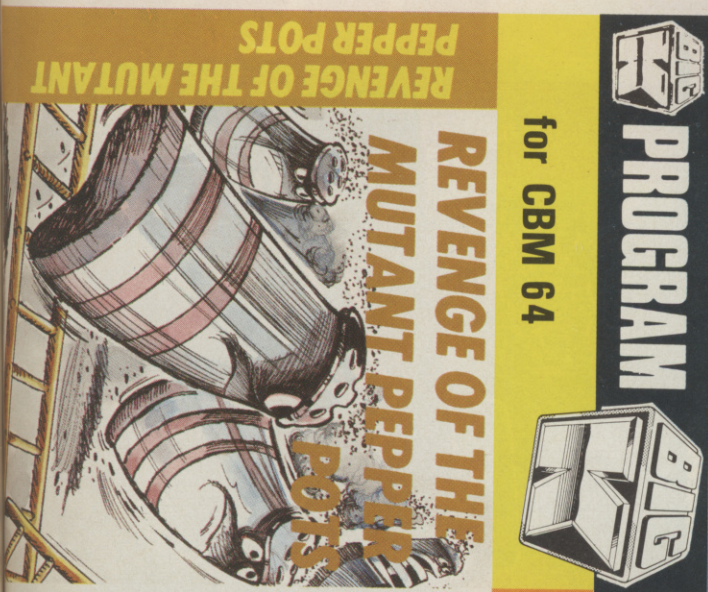
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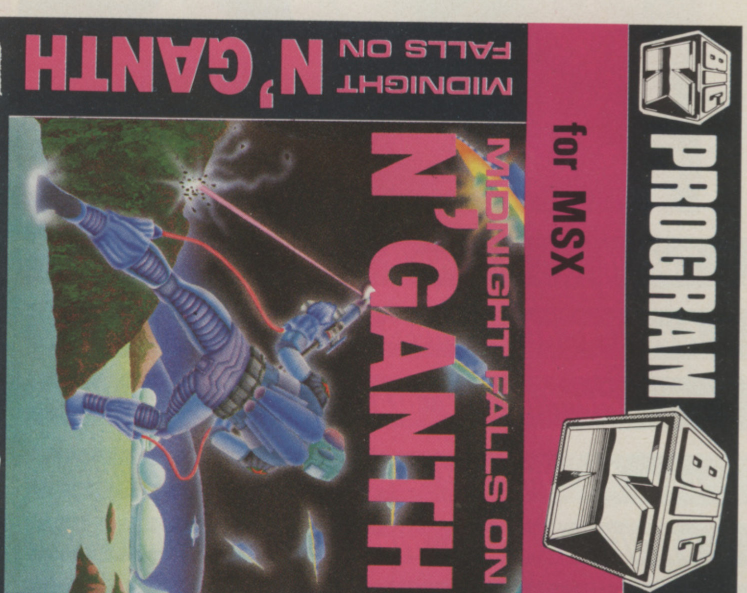
for CBM 64
PROGRAM
REVENGE OF THE MUTANT PEPPER POTS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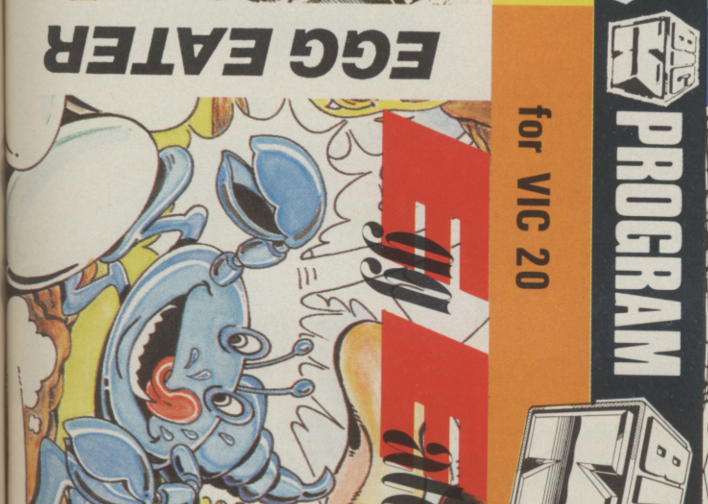
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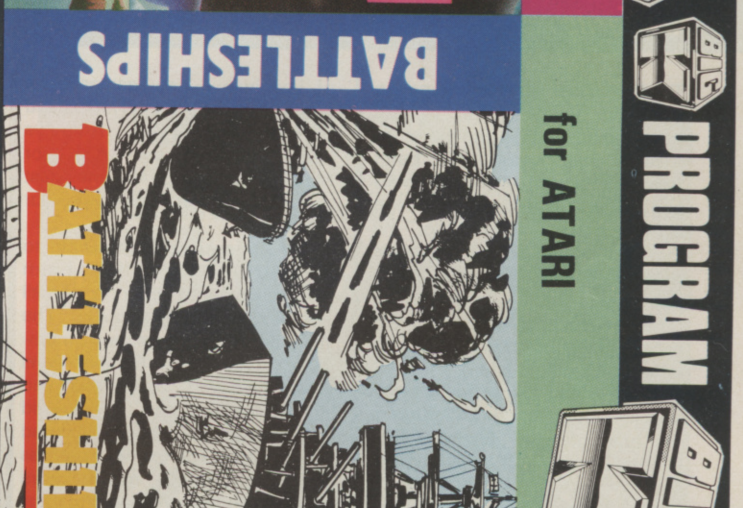
for VIC 20
PROGRAM
Egg Eater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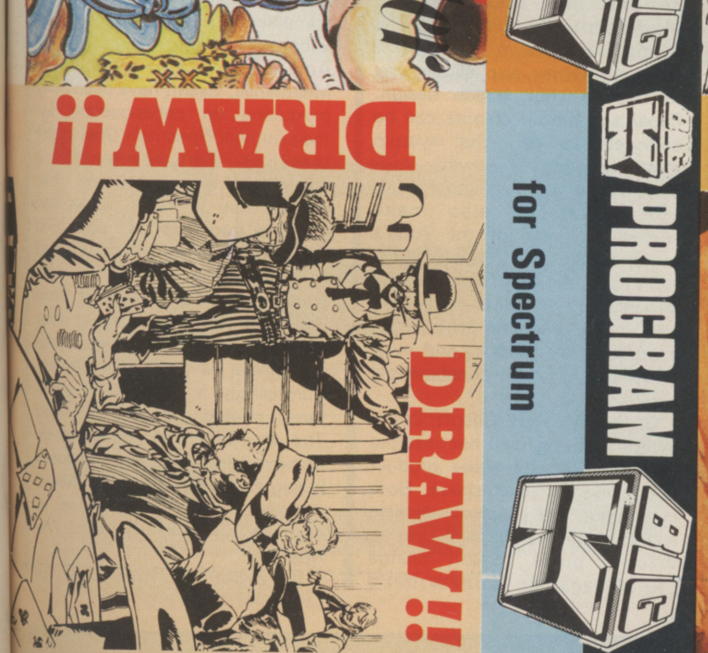
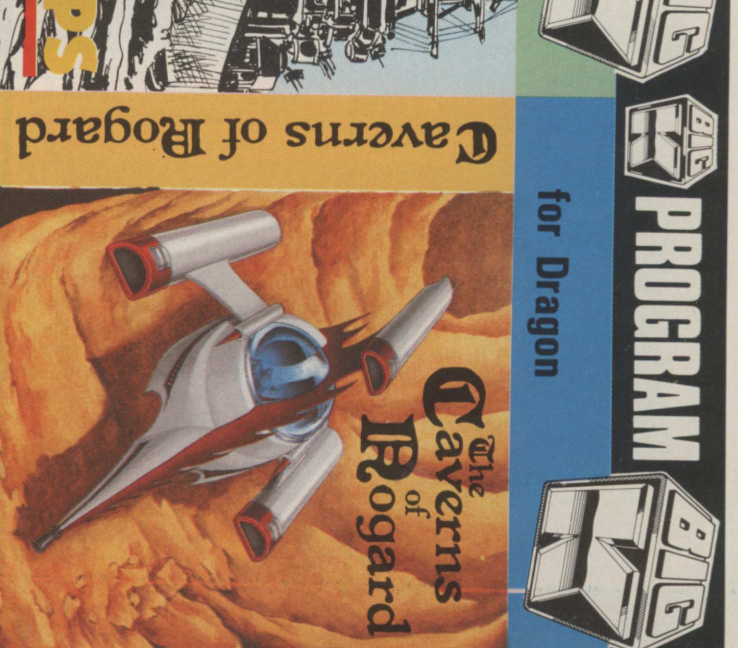
for ATARI
PROGRAM
BATTLESHIPS


DRAW!!
for Spectrum
PROGRAM
DRAW!!


Caverns of Rogard
for Dragon
PROGRAM
The Caverns of Rogard

DORKSLAYER!

DO WE HAVE T

'Cos if we do, we'll probably make a pig's breakfast of it—unless we make use of one of the splendid new graphics-adventure utilities now hit ting the shelves. Weary adventurer STEVE KEATON tries his hand at pixel postcards . . .

YOUR OWN
ADVEN
the
CodeWriter Corporation
Adv
W
GILSOFT
Home Computer Software
The Illustrator
For The Spectrum 48K
For Use With
The Quill
Adventure Writin

AdventureWriter runs on Atari, The Illustrator (used with The Quill) on Spectrum.

The Dorkslayer surveyed his prison cell with a seasoned eye.

It seemed bleak in the extreme.

Black and yellow paint hung from the smooth dungeon walls and a small trapdoor laughed high above his head. "'Ello, ello," he muttered abruptly. "I recognise this!" And indeed he did. With little more than a keystroke he returned to the main menu. His escape had been effortless. It was what one would suspect.

The black 'n' yellow prison cell is well known to serious adventurers as one of the demonstration models in Gilsoft's celebrated Spectrum/CBM64 adventure writing utility, *The Quill.* However this particular cell was unearthed within an Atari 800XL! The prog was an Atari AdventureWriter from CodeWriter Ltd. The similarities are easily explained. CodeWriter have in fact licensed the Gilsoft system for worldwide conversion. So far versions have been made available for the Atari, the CBM64 and the IBM P/C. Unfortunately there's a snag. They're only available as discs. There are no plans for any cassettes or ROMs.

AdventureWriter is a menu-driven utility that enables adventure games to be written without coding. Essentially it just (just!) compiles a database comprised of various interactive tables and regurgitates them in the form of a standalone adventure. Gilsoft's original has been gleefully embraced by UK 'Slayerdom, and has spawned a whole generation of imaginative new games — a notable example being *Hampstead* from Melbourne House. If you've been frustrated by BASIC or Machine Language in the past then this will finally unshackle your imagination.

The transition from *Quill* to *AdventureWriter* has been relatively smooth with only a small number of changes made. The manual though has been completely re-written. Simple icons now represent keystrokes and screen displays, and they're used to punctuate delicately segmented instructions. The learning process has been made much more palatable. The original manual rattles along at a fair old pace and is somewhat abrasive in comparison.

While initially daunting, *AdventureWriter* is in fact very logical and this (relatively) straightforward. Upon booting up you're asked to select either the main prog or a demonstration game, which to be honest is something of a throwaway. (It does however demonstrate the system's potential.) If you select *AdventureWriter*, the main menu screen flicks up. Or at least it should. My screen just filled with garbage (I was understandably perplexed). It transpired that i'd neglected to disable the XLs BASIC. *AdventureWriter* lives quite happily with disc drives running DOS 2; however if you run on the newer DOS 3 then *you must* hold down the OPTION key when you boot up.

Special FX and other strange noises

In addition to standard system options like Message and Movement tables (just answer the prompts and you're in business) *AdventureWriter* also allows you to tart up your screen design. Paper and border colours can be changed as can the system messages (eg. I await your command, I do not understand, etc). You can also make considerable use of the Atari's vocal chords.

By using the SOUND command and setting note, pitch, distortion and volume you can produce an impressive soundtrack, and even create special FX like gunshots and explosions.

Curiously the Gilsoft/CodeWriter licensing deal has resulted in essentially the same product competing for shelf space. Both companies have disc versions available for the CBM64, but at differing prices. Gilsoft charge £19.95 against CodeWriter's £24.95. If you opt for the latter you'll get a brighter box and more accessible manual. Said Gilsoft's Howard Gilberts, "We're not complaining, we get a royalty either way."

And lo, there came graphics

Meanwhile, Gilsoft have been busy producing an enhancement for their original Spectrum *Quill* in the form of *The Illustrator,* a complementary package that enables you to insert full screen graphics into *Quill* advntures. To say that it's been eagerly awaited is something of an understatement. I for one have been badgering the Gilberts about it for months and nearly choked with excitement when it finally arrived. Surprisingly it lives up to even these inflated expecations. Using *The Illustrator,* full colour, hi-res displays can be painlessly painted (using about 500 bytes per sheet), thus allowing almost anyone to produce their own version of *The Hobbit.*

In order to introduce its

ETO DRAW YOU A PICTURE

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capabilities *The Illustrator* reprises the small demonstration adventure from the original Quill manual. A database for this is included on the cassette.

The first step in creating your graphics involves loading a *Quill*ed database into *The Illustrator*. It's only interested in the first few bytes of this and alters its display when it's had enough. it's worth noting that *The Illustrator* will only work with the new series C *Quills.* If you have a series A database it will have to be converted. A short prog on the new *Quills* will enable you to do this. Those wishing to upgrade should contact Gilsoft direct.

Enormous savings

Having loaded the database you'll then be confronted by the standard 'not compatible' blurb. This means that the number of locations present in your database does not match those already in *The Illustrator.* The system needs to be initialised. Just press the 'Y' prompt and it'll create the required number of locations. A variety of facilities are thus made available: simple line graphics can be drawn by dragging a couple of cursors about the screen, 2 fill routines are available for rapid painting and there are 255 (count 'em) different varieties of shade. Perhaps the most interesting feature though is the SCALE option.

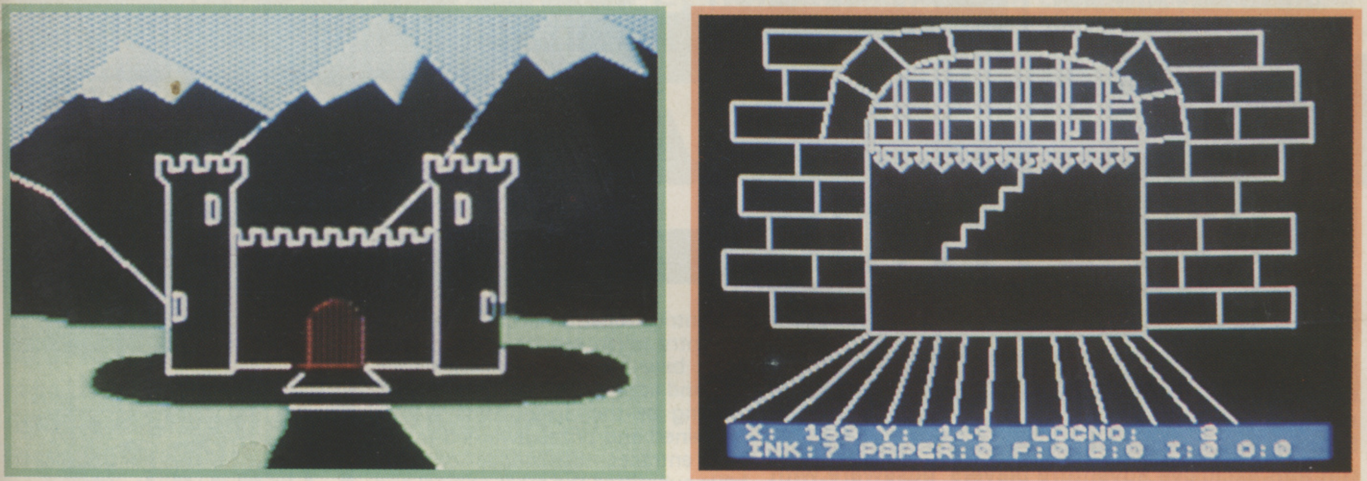
This allows you to draw a picture in the form of a subroutine (imagine a door or candle) which can be called up at any location and in scale. This means that you could create an entire forest from just one tree subroutine! The memory saving is enormous. In the finished adventure the graphics draw relatively fast (depending on the kind of fills you've selected) and then flit away at a keystroke. Neat and unobtrusive. The system clearly has monstrous potential. It's a snip at £14.95. My guess is that both *The Hollow* and *Madcap Manor* (oiriginally planned as new additions to Gilsoft's text only Gold Collection) will now be released with *Illustrator* graphics.

And there's more! Planned are Illustrators for the CBM64 and Atari as well as Quills/Adventure-Writers for both the BBC and the Amstrad. A text compressor is also scheduled for late '85. The possibilities seem endless.

The Dorkslayer hangs out the Helpline

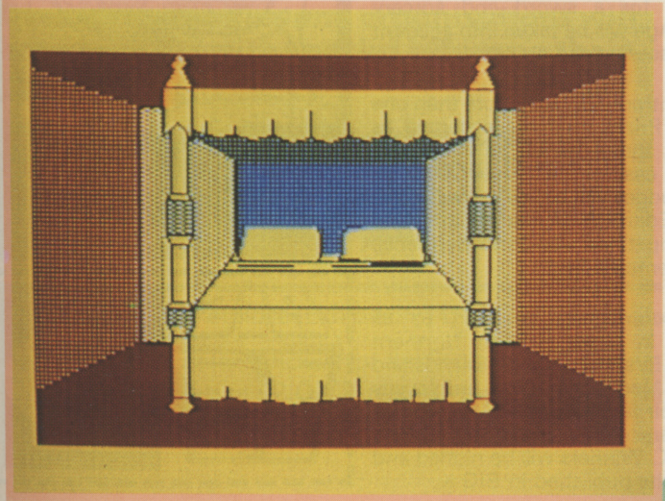
"Does anyone know of a Dragon version of the Crowther and Woods game, *Colossal Cave?*" pleads Cameron M Black, from the wilds of Glasgow. "Someone must have written a version!" Well, apparently not. My initial thought

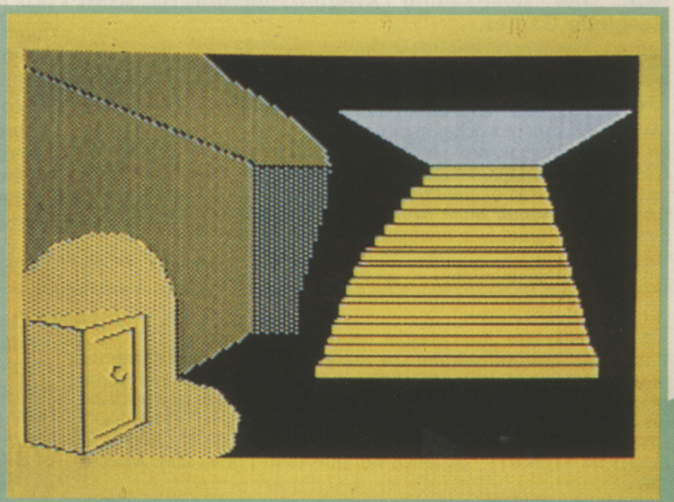
OVER PAGE



```
X: 169 Y: 149  LOCNO:  2
INK:7 PAPER:0 F:0 B:0 I:0 O:0
```

Two stages of designing a scene on Gilsoft's **Illustrator.** Like in art class, get the perspective right first then embellish afterwards.





was perhaps Tandy stocked a TRS80 lookalike but all enquiries have drawn blanks. if anyone out there can help . . .

Also creditable is the work carried out by Stephen Green, of Highworth, Swindon, on Hewson's mega-headache, *Avalon.* This weary warrior has actually mapped all eight levels (give or take some rooms) and is very near to completing the adventure. A wad of hints has been sent as proof. "If an object looks suspicious", declares Stephen sagely "Send your servant in first. Beware of trapdoors though as they often hide spiders and scorpions. Some doors don't require keys, so you'll need to use either your servant or an open spell. One door in the Gatehouse level appears to be impenetrable. If you pound on it for a while a wraith will appear and go through but if you follow the program will crash."

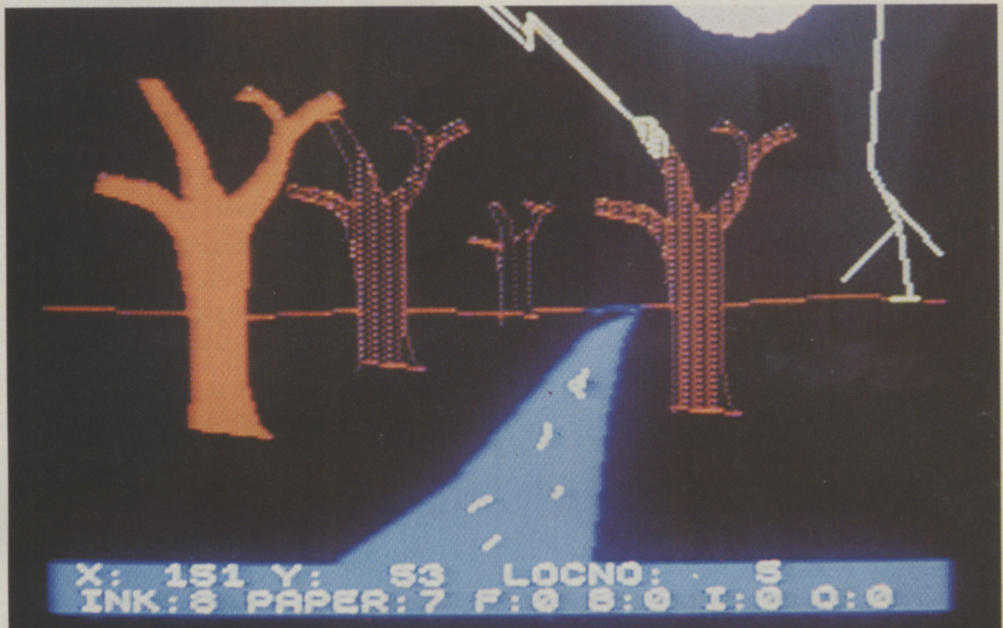
According to Stephen, most Warlocks can be defeated with gold, which is freely available on the gatehouse level and in both the Caverns of Doom and Halls of the Deep. The Warlock in the mines however can only be killed by a diamond. To find this you'll need to kill the spider in the mines. Curiously, the gatehouse warlock will give out a star when he's aced. This transforms into an energy booster when passed over the pentangle near the start.

"There are several energy boosters scattered about," he adds, "including mushrooms, flames and crystal balls, but they often have counterparts which drain energy. Useful objects are also disguised. There's a chest that looks like a spider and a key that looks like a bone on the gatehouse level. Dispel should reveal all . . ."

Peter Fleming and Cambell McGibbon have also been busy mapping, this time with Fantasy's *Doomsday Castle.* However as this is something of an arcade prog it's not really of much interest (here). Still they've done some impressive work. Perhaps the boys would like to turn their hands to *Sherlock* (from Melbourne House)? I could do with some help.

Dorkreader

If you're smarting from Acornsoft's *Philosopher's Quest* or *Castle of Riddles,* or puzzling over Scott Adams' *Voodoo Castle* and *The Count,* then invest some shekels in *The BBC Micro Adventurer.* Written by Bob Chappell, published by Duckwork and priced at a paltry £3.95 it takes a comprehensive look at all these adventures and offers segmented solutions and invaluable maps. Even if you don't own a BBC it makes a nifty read between meals.



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COMPETITION TIME

BIG K and Gargoyle Games present . . .

THE TIR NA NOG CHALLENGE!

Can you create an Adventure Game Character?
5 Tir Na Nog Limited Edition Prints TO BE WON!

Get into exclusive adventure players' poseware with this superb, limited edition, high quality map of Tir Na Nog, the best-selling graphic adventure from Gargoyle Games.

HOW TO ENTER

Tir Na Nog is a game along traditional sword and sorcery lines with the powers of evil being opposed by you in the guise of Cucu, a Celtic hero. However, for this competion you are required to create a character as a substitute hero suitable for such a mystical quest. The details of the quest are unimportant, sufficient to say that your character must overcome horrendous odds to achieve Evil's defeat. Send in a brief summary of your hero including the following:

- * Physical description.
- * Attributes and/or weaknesses.
- * Character's name.
- * Anything else you consider appropriate.

When you have written the summary of your fictional character firmly affix the special entry token cut from this page to your piece of paper and don't forget to include your name, age and address on your entry. Post it in a sealed envelope to: BIG K TIR NA NOG COMPETION, LAVINGTON HOUSE, LAVINGTON STREET, LONDON SE99 6YP, to arrive no later than Friday 29th March, 1985.

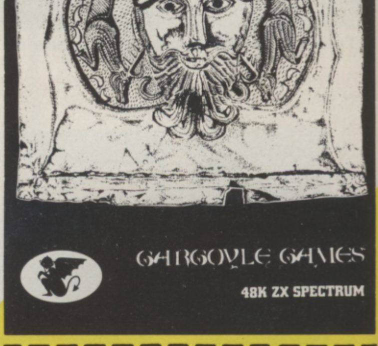
RULES

All entries must be accompanied by an entry token cut from BIG K and must bear the entrant's own name, age and address. All accepted entries arriving by the closing date will be examined and prizes awarded to the five entrants the judges consider have submitted the most original and best described fictional character suitable for a sword and sorcery quest. Age will be taken into account when assesing the entries.

No entrant may win more than one award. Prizes must be accepted as offered, there can be no alternative awards, cash or otherwise. Decisions of the judges will be final as will those of the Editor in all matters affecting the competition. No correspondence will be entered into.

The competion is open to all readers in Great Britain, Northern Ireland, Eire, the Channel Islands and Isle of Man other than employees (and their families) or IPC Magazines Ltd., Gargoyle Games or the printers of BIG K. Winners will be nitified and the results published in BIG K.

tír na nóg
GARGOYLE GAMES
48K ZX SPECTRUM



The Second 6809 COLOUR SHOW

FOR DRAGON AND TANDY USERS

SATURDAY 30TH AND SUNDAY 31ST MARCH
THE ROYAL HORTICULTURAL HALLS
10 A.M. UNTIL 6 P.M.

Everyone said the first show was good! "Over 7,000 people attended ... queues formed early ... "Dragon User, Jan 85. "The show was a tremendous success" Dragon Users Group. "Many thanks for the very worthwhile 6809 show" Grosvenor Software.

This show will be even better!! Even more to see and choose from. The very latest **hardware, software, interfaces** and **peripherals** will be there together with all your old favourites. Your chance to get up to date, try and buy all thats new. And pick up some **amazing bargains.**

Over 60 companies and organisations will be exhibiting with **special offers** on their products.

We'll also be organising events and competitions with **lots of prizes**. The manufacturers will be staffing **advice centres** to help with all your queries.

Large gangways and spacious rest areas will make sure you can see everything and sit in comfort when you want. The second 6809 Colour Show is a **family** show, a good day out.

HOW TO GET THERE

The Royal Horticultural Halls are just off Victoria Street a few minutes walk from Victoria or Parliament Square.

Buses 11, 24, 29, 70, 76 and 88 run up Victoria Street.

Underground stations; St. James Park (District and Circle lines), Victoria (District, Circle and Victoria lines).

There is an NCP car park in Abingdon Street, a few minutes away.

This exhibition is organised by:
Computer Marketplace (Exhibitions) Ltd.,
Part of the Rushworth Dales Group,
20 Orange Street,
LONDON WC2H 7ED

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To: Computer Marketplace (Exhibitions) Ltd., 20 Orange Street, London WC2H 7ED

Please rush me 'fast lane' tickets for the Second 6809 Colour Show.
☐ (Qty) Adult tickets at £2.00 ☐ (Qty) Under 12 year old tickets at £1.00

I enclose cheque/P.O. to the value of £________ or debit my Access/Diner/American Express card
No. __________ Signature __________
Name __________
Address __________ Big K1
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6809 is the registered name of Motorola Ltd.

Wanna win a fiver? Letters to BIGK

Yes, you too can join the formidable team of literati assembled on this here double-page spread and end up RICHER by FIVE WHOLE POUNDS! (If we publish your letter, that is.)

Scend your Scenario to . . .

Letterbase,
Big K
Room 2038
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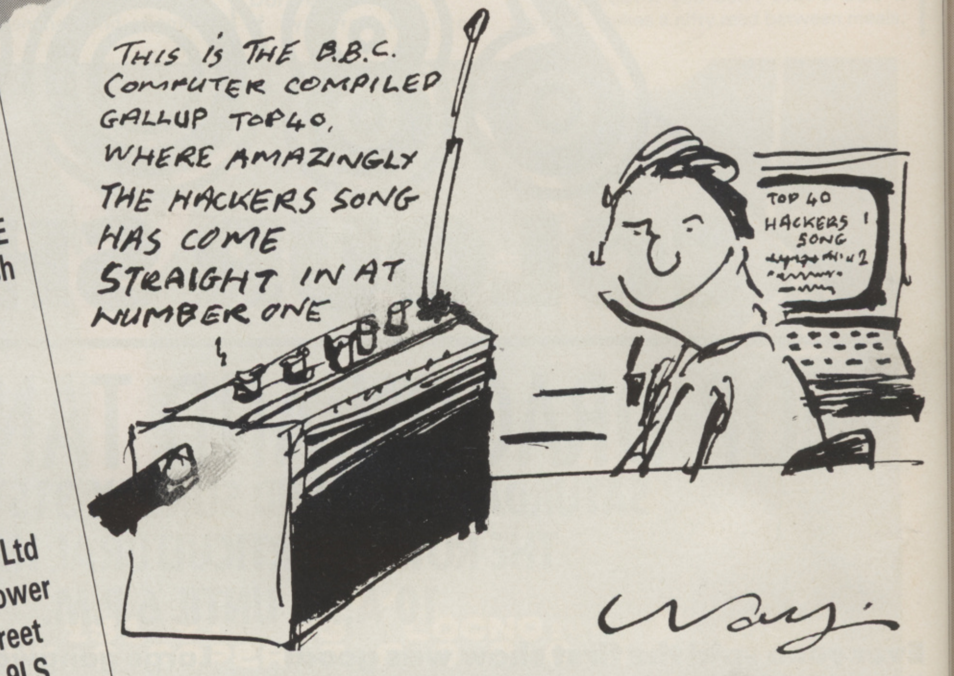
Kings Reach Tower
Stamford Street
London SE1 9LS


THIS IS THE B.B.C. COMPUTER COMPILED GALLUP TOP40, WHERE AMAZINGLY THE HACKERS SONG HAS COME STRAIGHT IN AT NUMBER ONE
TOP 40
HACKERS 1
SONG
2

CAMEL MAN IN BLUE NOSE SHOCK?

Fellow Spectrum owners! I call on you to write and rebel against the forthcoming invasion of Llamasoft conversions for the Spectrum. In his newsletter, Jeff Minter referred to the Z80-based-electronic-apparatus-for-making-calculations-and-controlling-operations-expressed-in-numbered-logic as: "the black frisbee with rubber protrusions", and what's more goes on to say that it's not a "real machine." He claims that his *Ancipital* conversion may "shed a little light into the blighted lives of those poor souls living under the shadow of the rubber keys of doom." What cheek!

If the spaced-out hippy thinks he can take Uncle Clive's brainchild in vain like this — he's got another thing coming.

THE BLUE NOSED HIPPY STRANGLER OF SANTA MARIA,
Co. Tipperary,
Ireland.

OH FOR THE WINGS OF A HACKER

I thought that lonesome hackers might like a copy of 'The Hackers Song' to sing whilst working at Swiss banks etc. It is to be sung to the tune of the Skol advertisement on TV.

There's another side to computing,
That's very, very sly,
Just lift the receiver,
Type the code
And let the data fly!

CHORUS
Oh I'm a Hacker, you're a Hacker
We're hackers through and through
If you know how to hack
Then you know what to do
You can be a hacker too
A hacker through and through . . .

You're inside someone's system,
You've cracked it all at last,
Rip off the software
Change the files
And log off very fast!
(Repeat and Fade)

ANDY WHITTAKER,
Bucknall
Stoke-on-Trent

GREAT MICRO ROBBERY

Our physics teacher was a bit suspicious of an ad in BIG K 9, offering Spectrums at £59.95 and games at half price. He phoned his mate in the Lancashire police force, and got him to check it out. It turned out to be a con. Spectra Imports don't exist.

I hope you are ashamed of yourselves for failing to check out an advert.

CRAIG UNDERWOOD & JOHN DURRANT.
Haverhill,
Suffolk.

• Good old "Stinks"! The sinister Spectra ad appeared right across the computer press just before Xmas — unfortunately, the ad copy came in so late that we didn't have time to apply our normal checks. Though we've been telling enquirers on the phone since then, let's repeat: this is a scam. Send no money. If you have already sent money, contact the CID at Lancashire County Police, Nelson, Lancs.

CAT LOOKS AT KING

J. Morter (LETTERBASE 9) wondered whether there is a mega-decent athletics simulation for the great Atari home computer. I can assure you there is — and it's brilliant. It's *L.A. Olympics* by Konami.

I'll take this opportunity of saying what a great mag this is. It's different from all the others — it's got STYLE.

TREVOR "CAT" MOGG,
Basingstoke,
Hants.

G K edited by NICKY XIKLUNA

NAILED

I am writing to praise your excellent review of the arcade game *Space Ace*. I poured eight quid into the game and still only reached the final sequence on the easy level.

Your reviewer was not brilliant at the game though (this is obvious because the photographs all were of the start or title pages). He did not mention some of the best screens like the alien motorbikes and the ending fight. Instead of arcade dodos like this — why don't you get the kids who play AND WIN the games to do the reviews?

MARTIN TAYLOR,
Godalming,
Surrey.

• You should know that the folks who take the screen shots (and the laser dumps) of games we review are not the same as the people who review them. Which explains why you see so many early sequences. Otherwise . . . point taken. We'll be cleaning up our act.

COLLAPSEVILLE UK

I thought you might be interested in hearing about what I have written off besides the obligatory two Spectrums. Even as I write, number three's keyboard quietly begins to flake . . .

Curry's assured me that their tape recorder was Spectrum-compatible. It wasn't. It went back. I then bought a programmable joystick interface form Stonechip Electronics that wouldn't load properly. They wrote asking me to find an enclosed instruction leaflet — but it wasn't there. Could the leaflet have been written under the stamp perhaps? So then I bought a joystick from Datel Electronics. That went down. (And they never refunded my postage.) My very best joysticks remain my six-year-old Ataris.

Then there's all the software that just won't load. One reason is that there are two different tape-deck speeds. The standard speed was changed about five years ago. Each program will only load at one of these speeds.

The entire computer industry seems to me to be massively inefficient and indifferent. To struggle against it seems hopeless. Very often you are made to feel as if you're being plain awkward when returning faulty goods.

TIM WILLIS,
Loughborough,
Leics.

• Our advice is that you create two lists. On one, put the name of every company that has given cause for complaint. On the other, put the decent ones. Have no more truck with those on the first, and broadcast your findings widely.

Incidentally, you're wrong about the tape-deck speed — it's usually faulty tapes that are to blame.

THE O'GRADY TRAIN . . .

Here is some more music to accompany games to add to Trevor O'Grady's train of thought:

Manic Miner — "Going Underground"

Full Throttle — "I Want To Ride My Bicycle"

Frogger — "Jump For My Love".

NICK BARFOOT,
Colehil,
Dorset.

• Actually, it was Simon Curtis' train of thought and here are some more suggestions to take on board.

COMPUTER CND GETS "GRASS ROOTS" SUPPORT!

I totally agree with Trevor O'Grady's letter (Computer Snob War — Early Warning, Letterbase 8). How can anyone claim that the Commodore degrades BASIC when 99% of its software is written in machine code? Let's stop this stupid war before some idiot starts World War Three!

PAUL BRYANT,
Gillingham,
Kent.

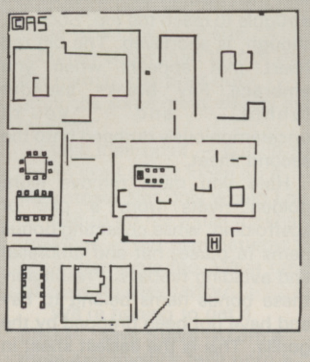
BLACKMAIL

In a bid to prove your impartiality, how about an article in your mag dealing with the role of software companies in piracy? Isn't it about time you showed them for what they are instead of putting the blame on this side of the fence? As an attempt at a piece of blackmail . . . If you don't comply with my wishes I will write a letter to Atari informing them that they are being grossly ripped off by the software companies. The ball's in your court now!

JIM SHORT,
Newarthill,
Motherwell.

• You think Atari don't know, eh, Jim lad?

THE FIRST ZOMBIE MAP?



HAYDEN ANDREWS,
Weston,
Northampton.

BATTLEMOAN

I feel that I must write to inform you that part of your review of *Battlezone* is incorrect. You inform the reader that there are no instructions in the game. In fact they appear after the display of enemies likely to be encountered, and the display instruction.

P.M. MELODY,
Windsor,
Berkshire.

• Fin Fahey has been shot.

BONJOUR BELGIQUE

I bought a BBC machine last year. A little later, I went to a shop in Luxembourg for the *BIG K* magazine. Since then, it has been impossible to find it, even at the price of 200 Francs! I am writing to ask how I can get BIG K.

ROLAND FRIES,
Messancy,
Belgique.

• Sorry Roland (and many others). Still no subs. We'll let you know.

GATE-KEEPER OR KEY-MASTER?

Has any Ghostbuster reached Zuul with over £1,000? If so, what is your account number, as Stay Puft always chews up mine and spits it out as zero.

And Nicky, ARE you a male or a female?

P.J. DAY,
Cardiff.

• Yes, yes, YES.

GULPO!

Steven Spielberg doesn't own the rights to all the gremlins — BIG K has more than its far share. Last issue (Feb.) they conspired to lose the credits to three of our games listings.

To keep the record straight, and recognise our talented readers (we are in grovel mode) here are the missing names.

Galactic Minefield (p.74) was written by Brian Edwards. David Greahme wrote *Fruitbusters* (p.56) and D. Schwanenflugel and Antony Trenker were responsible for *Octonium Moon* (p.00).

CLASSIC GAMES OF OUR TIME

STILL CRAZY AFTER ALL THESE YEARS

No. 11 DONKEY KONG (Nintendo) by STEVE KEATON

WHEN THE Nintendo architects first conceived *Donkey Kong*'s now-infamous tower of iron, few could have imagined the impact it was to have on a fledgling video games industry.

Even when it debuted at the Chicago AMOA (Amusement Machine Operators Association) show, back in October '81, there was little indication as to the kind of monster it was about to become. At the time arcades had only every seen shoot-'em-ups and bound-'em-backs; levels and ladders were an undreamed of addiction. The idea of a dumb ol' climbing game was clearly Naffola City.

So much for foresight. The genre's become massive.

Donkey Kong is indisputably the grandpappy of all ladder 'n' level scenarios, predating by almost a millenium the plethora of climbing variants you currently enjoy. However neat your favourite climbaround appears to be, its roots will invariably trail back to *Kong*. All ladders lead to Nintendo. *Donkey Kong* begat Big Five's *Miner 2049er*, which in turn inspired umpteen variations including our own beloved *Manic Miner*. Matthew Smith's smash may have been many things, but it was certainly not original. *Donkey Kong* probably has more direct descendants than any other slice of arcadia (and that includes *Space Invaders!*).

Essentially it's a clever reworking of Willis O'Brien's magical monster movie, *King Kong*. As Mario, the game's diminutive mustachioed hero, you must endeavour to rescue beloved Fay Wray from the clutches of an irate ape ensconced within an unending skeletal skyscraper. It's a fruitless task, natch, as the girl can never be rescued, but you plug away anyhow just to bug the monkey. Hence the rather odd handle. Indeed, the name has puzzled players for generations, and experts can often be seen pontificating on its origin. As recently as BIG K issue 10, Tony Takoushi (AKA The Stoat or somesuch) proclaimed sagely that "Donkey" was in face a misspelling of "monkey". This, as you may have suspected, is hooey. Truth is, the Japanese word for Donkey is also a Japanese slang word for crazy (hence the confusion). Understandably the game-pirates didn't make a similar mistake, and went on to market their versions under the correct title of Crazy Kong.

Doing the Monkey Mash

Nintendo's arcade *Donkey Kong* is a four-screen cartoon epic with cumulative difficulty levels. The first, and most familiar, involves moving up six shattered girders toward your captive girlfriend. Kong rolls barrels in an attempt to thwart you, which in turn create fireballs when they hit the oil drum at the bottom of the screen. A life is lost if you touch either. You also perish when the bonus box zeroes. This begins with 5000 bonus points and then steadily decreases as you struggle to reach the top. Success, though, is shortlived. The big red heart that appears when you embrace Fay breaks asunder (ahhh) and you're unceremoniously dumped onto the second sheet.

Here you must remove eight golden rivets from a pile of scaffolding, while collecting bonus items (a purse, hat and umbrella) and avoiding fireballs. Presumably these bonus items belong to Fay and have not been dropped by the gorilla. This is the easiest sheet in the game and owes more than a little to the Pac family. Once you've removed the rivets the structure collapses hurling Kong onto the deck — and you back onto the first screen. This time round things get tougher as the barrels ae thrown not rolled.

Dumb sand scam on mega-mysterious fourth sheet

The third sheet introduces elevators and iron nuggets onto the play area and life becomes noticeably more perilous. The elevator on the left trundles up while its companion trundles down. Even as you stand eyeing these devices with understandable apprehension, evil iron nuggets are inching their way toward you. Conquer this (consider yourself a grade A player if you can) and you're treated to repeats of the girder and rivet screens prior to an audience with sheet four.

I guess it's something of a testament to the toughness of those elevators that many people are actually unaware of a fourth sheet! This vaguely mysterious break point (if it doesn't break you nothing will!) comprises alternate girders and conveyor belts, along which travel deadly piles of sand (yeah, I know it sounds dumb). The central conveyor is even more treacherous as it's split by a burning oil drum. Trivia buffs should note that this sheet is normally buried seven screens deep within the gameplay, and is only occasionally seen. If however you've seen it earlier, then it's a fair bet that you've been playing a very rare Japanese import machine! Be sure to tell your pals!

Taking the ape home

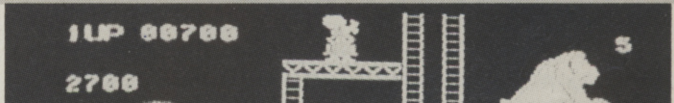
The best home *Kongs* are both ROMs. One is produced by Atari for their XL range and the other was bundled free with the now sadly defunct (but still unquestionably excellent) ColecoVision Games System. I guess if you want authenticity then the Atari comes out tops (hands up those that thought I was gonna say the Coleco?), as this is the only version to feature all four sheets and the animated frills (eg the breaking heart). The Coleco however has marginally smoother graphics and is slightly easier to defeat, perhaps because it only boasts three sheets.

Novice players should note that initial success at *Donkey Kong* comes through speed rather than aggression. Never be tempted to grab a hammer, however mean your mood. Coleco owners should also rattle their joysticks. Strange as it may sound, when you rattle your 'stick between the top and centre Mario just slides up those ladders! Don't ask me why, he just does. This trick speeds up the action no end.

The rivet screen demands a slighly less frenetic approach. Here you must isolate the fireballs by removing the rivets. The 'balls won't cross the gaps. The third and hardest sheet is of course the elevators. The key here lies in patience and a devious freefall from the top right-hand girder. Having collected the bonus prize just walk off into thin air! If you try and jump you're finished.

Having thus mastered the basic mechanics of the screens you can then begin to devise wily strategies for bumping up your score. My current tactic involves actually iding behind the oil drum on the first sheet! here you're safe from all the falling barrels and are able to sneak up on the first fireball for easy points. A cunning (not to mention ludicrous) ploy I'm sure you'll agree.

To date the game has spawned two sequels. *Donkey Kong Jr* and *Mario Bros*. More are undoubtedly imminent. We'll keep you posted.



SOFT WEAR

Generally speaking, hackers are not known to slobber over clobber. As a tribe they (you?) are not well-dressed. So we thought we'd run up this little number to get your sartorial senses salivating. Roll over, art-school scum — the Cad-cam Couturists are coming!

THERE'S A certain cast of great British enthusiast who feels strongly that the greatest tribute he can give to his obsession is to forget about himself.

This means ignoring other social life, manners and most of all — his own appearance. Like a monk (or adherent of any other cult) his outer garb signals that he is Not Of This Mundane World. He may be rooted down here by his feet, but his ripped and shining anorak — his ancient crumbling plimsolls — are signals to the world that his head is on other, more important matters — on a different plane from ours entirely. That head — wreathed in a halo of flamboyantly unkempt, proudly and defiantly unfashionable hair — is somewhere between cloud nine and cloud-cuckoo land. For he is a true maverick.

Should you ask him why he dresses like he does, he will cast a solemn National Health lens at you (the eyeball behind which is virtually obscured by the greasy finger-prints of eons past) and reply sternly, ''I don't believe in fashion''.

As distinguished from glorious hippydom — where dress proclaimed what wonderful, agalitarian people they all really were — these are the MADS — the MODERN ANTI-DRESSERS. And such is MAD philosophy. But do only fools follow fashion? Do MADS rule? In short — IS THERE SUCH A THING AS A DAPPER ZAPPER? We think there is . . .

THE GLAD rags in the following pages were all designed on Kim Aldis's BBC Graph-Pac. (BIG K issue 8). Lucy Clive and Steve Smith design the fabric that makes the clothes that Lucy and Steve sell in their shop in one of London's smarter places. I met the purveyors of the Clive label at their West London flat which was occupied mostly by a table that would have done King Arthur proud. This was bestrewn with designs at various stages, from computer print-outs to enlarged and inked-in designs that were finished and waiting to go to the factory to be silk-screened and printed.

Lucy's artwork centres on the human figure which she translates into computer terms. The result is distinct; modern designs with a primitive feel. For example, her design 'The Swimmer' was the result of several days sketching at the local pool. Essential lines are emphasised, and content simplified. Lucy insists that she doesn't set out to produce an 'ethnic' feel — the computer does it. ''It's an effect of the process''. To quote from famous fashion impresario, Nigel O'Stitchitwell;

"Bold and rhythmic, Lucy's design creates a symbiosis between the ancient ethnic and the terrifyingly new. Who would have thought it? — The rugged logic of the computer lends the human form of the old masters a new simplicity that strikes a chort of ethnic dissonance into the soul of modern man. I am commissioning Lucy to redesign all my pyjamas."

Lucy has learned to keep mum about her clobber's secret computer origins. ''People think I've programmed the computer to originate the whole design — that I haven't done a thing myself.'' In fact, that rough-hewn look is the last thing that her clients expect a computer to produce. And Lucy's method certainly doesn't mean any less work. Stacked next to the BBC are some 20 tapes containing 100 designs. Only 20 will ever be published.

Lucy sits in the corner with the Beeb. She starts off with an idea in freehand that she thinks will work. ''I put the image into the computer with Graph-Pac and then play around with it. The beauty of the joystick is that you can't cheat. You keep on having to simplify.''

Lucy admits to having been apprehensive about working on a computer. ''But once I started drawing — I love it. It was amazed that something so personal could come out of a machine. It's so expressive that even Kim (Aldis) was surprised.''

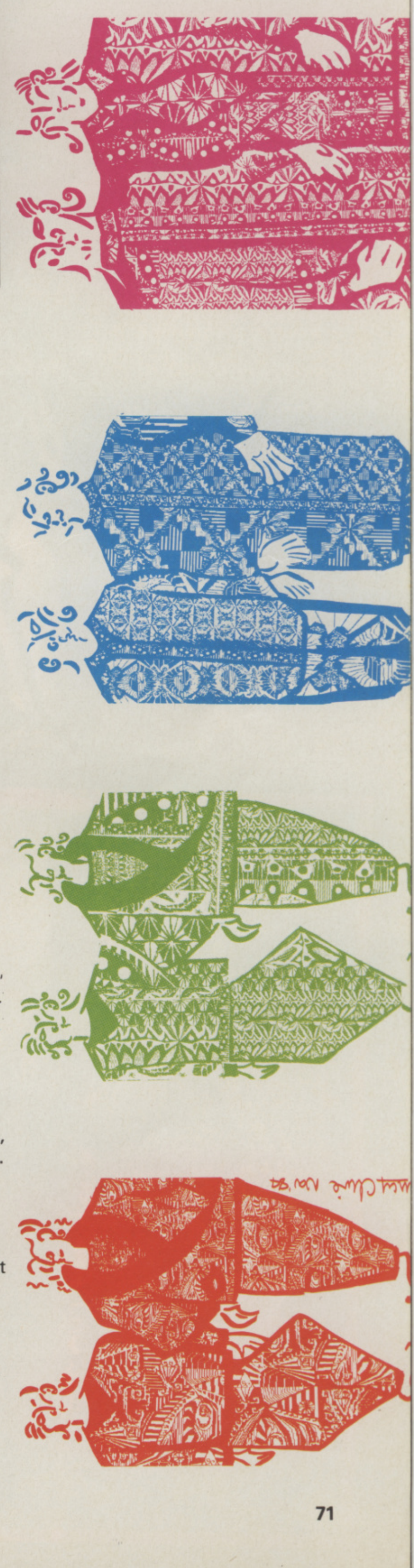
If all this wonder can be gleaned from a BBC, just think how the Clive label could be enhanced with a Macintosh. Aren't they just dying for one?

''Oh no'' says Steve. ''A moderate business like ours couldn't justify that kind of capital outlay. Besides, we're only just beginning to plumb the possibilities of the Beeb. Lots of interesting things happen in the process of working with it. Unexpected bonuses. For example, in resolution change. We have no facility for on-screen windowing as yet. But we can window using the printer [which is controlled by a ROM] to blow up certain sections. There's a stage when the pixel size becomes larger than that of the dot matrix. The print-out produces some great effects and textures''.

I take their point — but I'd still like to see Lou let loose on a Macintosh. Not only would Lou be able to do her initial 'freehand' drawings — but plan patterns for actual garments too. What other add-ons do they fancy?

''We're hoping to get a Bitstik'',. says Steve (Acorn's three-axis joystick built onto a ROM chip, which allows drawing, 'painting', zooming and panning). ''But we have a real problem, because software is so rarely reviewed by artists. Reviews are usually done by programmers who play with the technology but can't draw. If you're going actually to use the ware, artistic flair is most important than how hi the tech is''.

As more of the first computer-artesans like Lucy and Clive get going — surely that's a development in the grand design of things?



SOFT WEA

CLOTHES MAKETH THE MICRO

Who says computer owners are squares? They can be round, oblong, or even covered with little squiggly bits. Lisa and Sean strut their street-credibility stuff with the latest in low-level couture (BASIC, actually). And it's all done on the BBC Microcomputer using a programme exclusive to BIG K. Stand by for Knit-net, clobber-com, and (no doubt) underware.

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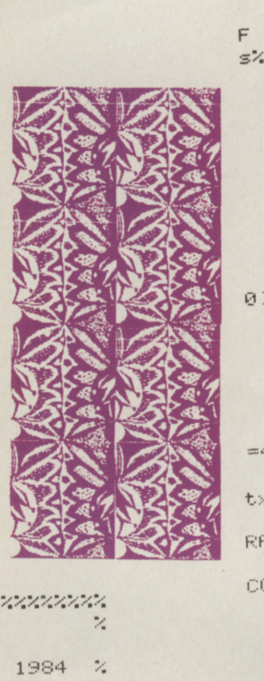
In the first shot — the one with the parasol — what you can't see is the photographer's tame ferret, which escaped just before the session began and is now just behind Sean's right trouser leg. By shot 2 (below), the errant beast had actually made it half-way up Lisa's back. We think she kept her cool admirably. In shot 3 — the one with the QL — the ferret has disappeared behind the stylish Microvitec QL monitor and is about to fuse the whole shebang. In shot 4 Sean, having at great risk to life, limb and manhood, caught the ferret, now restrains the animal on his lap — steady, Sean! — while the Nikons click and whirr. There, that's over!

SOFT WEA
WEAR

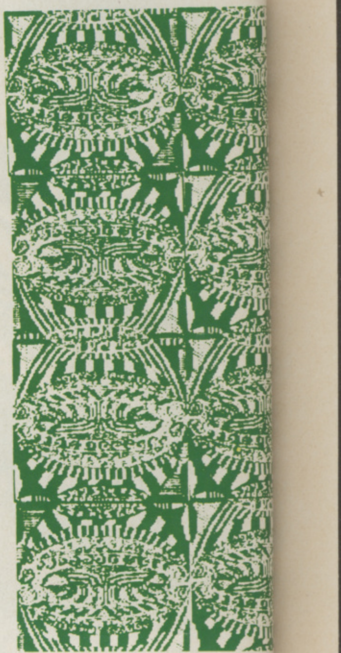
KIM ALDIS — BIG K acolyte and freelancer — designed the software that produced the designs on the preceding pages. Kim dropped the prog in on us one day, dubbed it *Graph-Pac*, and returned to his place of work in London's trendy Covent Garden. *Graph-Pac* was published in issue 8. Meanwhile we noticed that a something strange was happening to Kim. We'd known him when he wore long hair and Jesus boots. He began making appearances at BIG K in increasingly alarming levels of trendiness. We put out feelers. It transpired that Aldis had had the temerity, not only to donate his prog to BIG K, but to some young fashion designers too! Well, as far as BIG K was concerned — Aldis asked for all he got . . .

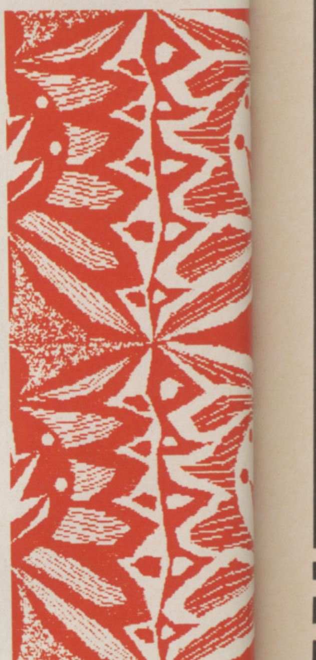
As a warning to others, we decided to publish more of the kind of stuff that can lead to terminal trendiness. So here is the Aldis PAT GEN. But remember — IT COULD HAPPEN TO YOU!



```
   10REM %%%%%%%%%%%%%%%%%%%%%%%%%%%%
   20REM %   PATGEN                 %

   30REM %   (C) KIM ALDIS 1984    %
   40REM %%%%%%%%%%%%%%%%%%%%%%%%%%%%
   50
   60PROCinit
   70MODE7:PROCinstr
   80MODE0:VDU23;8202;0;0;0;
   90PROCget_points
  100CLS
  110PROCshape(npts%,1,640,512)
  120PRINTTAB(0,0)"Same shape? (Y/N) ":o
pt$=GET$:IF opt$="Y" PROCsize:GOTO 100
  130PRINTTAB(0,0)"Save to tape or disc
(Y/N) ":opt$=GET$:IF opt$="Y" PROCsave:G
OTO 80
  140GOTO80
  150END
  160
  170 DEFPROCshape(npts%,size,xc%,yc%)
  180IF size<=.01 ENDPROC
  190LOCAL I%:rd%=rd%+1:MOVE xc%+X%(1)*s
ize,yc%+Y%(1)*size
  200FOR I%=1 TO npts%:IF flag%(I%) DRAW
xc%+X%(I%)*size,yc%+Y%(I%)*size ELSE MOV
E xc%+X%(I%)*size,yc%+Y%(I%)*size
  210NEXT
  220FOR I%=1 TO npts%:PROCshape(npts%,s
ize*rsize,xc%+X%(I%)*size,yc%+Y%(I%)*siz
e):NEXT
  230ENDPROC
  240
  250DEFPROCget_points
  260draw%=TRUE:CLS:PLOT69,640,512:npts%
=0:x%=640:y%=512
  270REPEAT:tx%=x%:ty%=y%:npts%=npts%+1:
PROCgetinput:IF npts%>1 AND draw% MOVE t
x%,ty%:DRAW x%,y% ELSE PLOT69,x%,y%
  280VDU7
  290X%(npts%)=x%-640:Y%(npts%)=y%-512:I
F draw% flag%(npts%)=TRUE ELSE flag%(npt,
s%)=FALSE
  300UNTIL input%=ASC"Q":PROCsize
  310ENDPROC
  320DEFPROCinit
  330DIM X%(50),Y%(50),flag%(50)
  340ENDPROC
  350
  360DEFPROCgetinput
  370*FX12,1
  380*FX4,1
  390GCOL4,1:inc%=4:REPEAT:input%=INKEY(
0):*FX15,0
  400IF input%=ASC"D" draw%=NOT draw%
  410IF input%=139 y%=y%+inc%
  420IF input%=138 y%=y%-inc%
  430IF input%=137 x%=x%+inc%
  440IF input%=136 x%=x%-inc%
  450IF input%<>-1 inc%=inc%+4 ELSE inc%
=4
  460PROCcurs:IF npts%>1 AND draw% MOVE
tx%,ty%:DRAW x%,y%:*FX19
  470IF npts%>1 AND draw% MOVE tx%,ty%:D
RAW x%,y%
  480UNTIL input%=13 OR input%=ASC"Q" :G
COL0,1:*FX4,0
  490ENDPROC
  500
  510DEFPROCcurs
  520FOR C%=1 TO 2:MOVE x%-8,y%:DRAWx%+8
,y%:MOVE x%,y%-8:DRAWx%,y%+8:NEXT
  530ENDPROC
  540DEFPROCsize
  550rd%=0:PRINTTAB(0,0) STRING$(30," ")
:INPUTTAB(0,0)"Relative size (fraction b
,etween 0 AND .6 ",rsize:IF rsize>.6 PRIN
'T'"Anything Bigger than .6 gives it a ne
rrvous breakdown"'"Try Again":GOTO550
  560ENDPROC
  570
  580DEFPROCinstr
  590CLS
  600PRINT'"Patgen is a recursive patter
rn generator (recursion, an algorithm tha
tt chases  "'" it's own tail."
  610PRINT'"Use the cursor keys to move
tthe cursor   around the screen, pressing
 <RETURN>"'" to draw a line. Pressing 'D
,' turns      drawing on and off"'"When y
cou have an acceptable design       press
,'Q' and give 'size', a number "
  620PRINT"between 0 and .6 , then sit b
aack and     watch the fun"
  630PRINT'"If you have 'Graph_pac' (Big
 K issue 8) you can save the design on t
aape "'" and load it into 'Graph_Pac for
ffurther work"
  640PRINT'''"              ANY KEY TO CONTIN
UUE":A=GET
  650ENDPROC
  660DEFPROCsave
  670PRINTTAB(0,0);STRING$(30," "):INPUT
|TAB(0,0)"Filename ----  ",name$:OSCLI("S
AAVE "+name$+" 3000 7FFF")
  680ENDPROC
```





OFT WEAR

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A two-year membership costs £35.95, three years £46.95.
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Made payable to Micro Repair Club Limited *Please tick relevant box
Please debit my Visa/Access card No: ______
Name ______
Address ______
______
I own a ______ home computer and it is in working order.

BIG K presents...

SHATTER

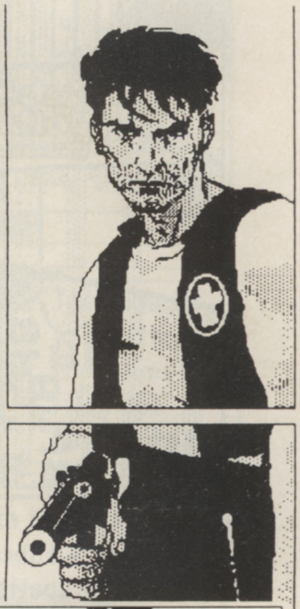
THE FIRST COMPUTERISED COMIC!

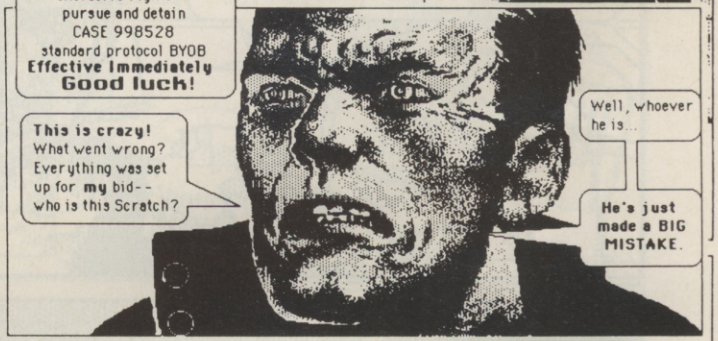
The Time: 21st Century.

The Place: Daley City, Chicagoland (formerly Illinois).

The Guy: Sadr al-din Morales (Shatter is easier to say) a.k.a. Jack Scratch, freelance policeman - a rentacop. The name Scratch came with the job, part of the deal.

The Job Situation: Temporary. All work is contracted out. The highest bidder gets the job. Same goes for law enforcement.




CONTRACT #556c
Jack Scratch
has been awarded the exclusive rights to pursue and detain CASE 998528 standard protocol BYOB
Effective Immediately
Good luck!
This is crazy! What went wrong? Everything was set up for my bid-- who is this Scratch?
Well, whoever he is...
He's just made a BIG MISTAKE.

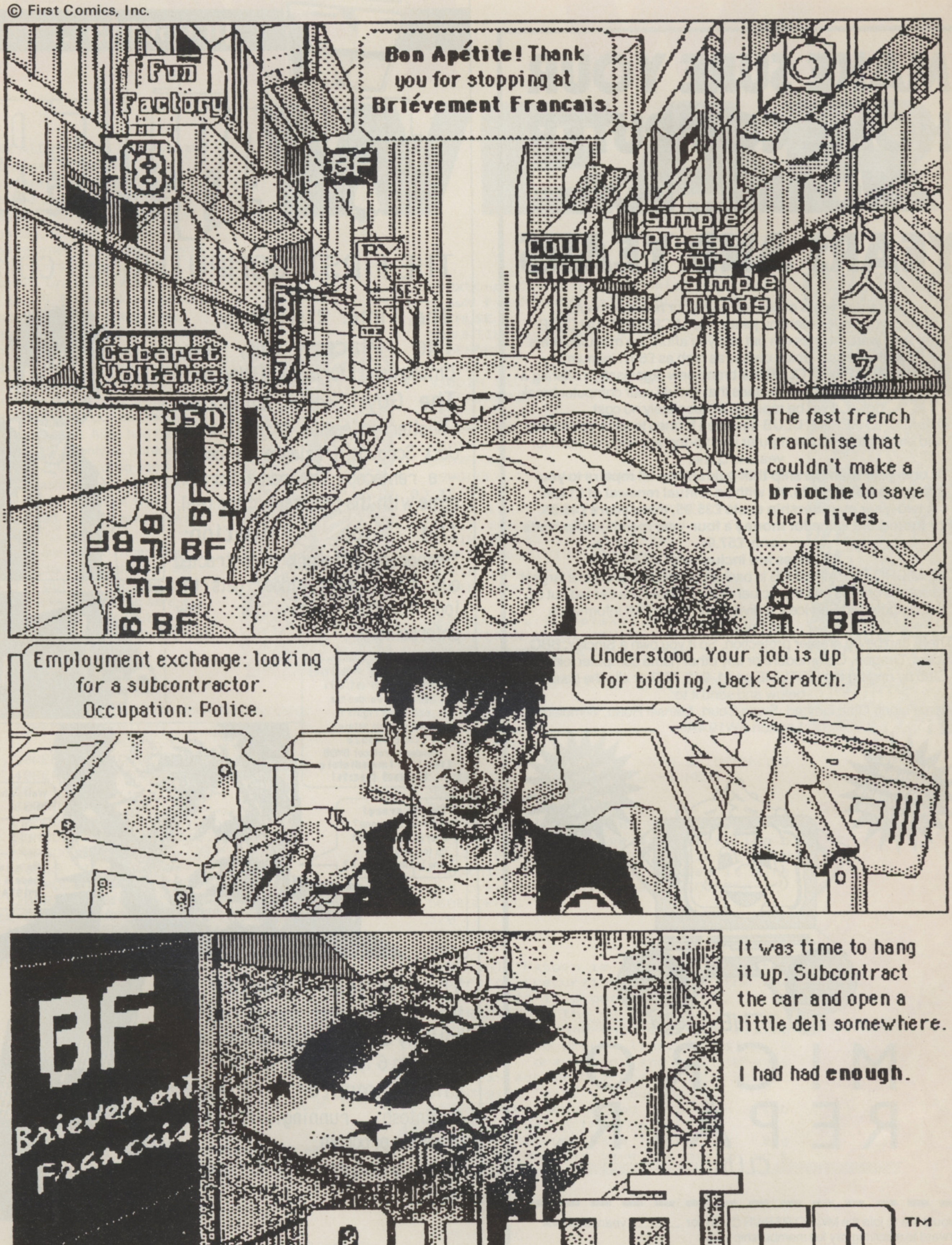
The Series: *Shatter* - the world's first comics series entirely drawn on a computer (see BIG K No.6 for further data).

The Computer: An Apple Macintosh, running MacPaint graphics program.

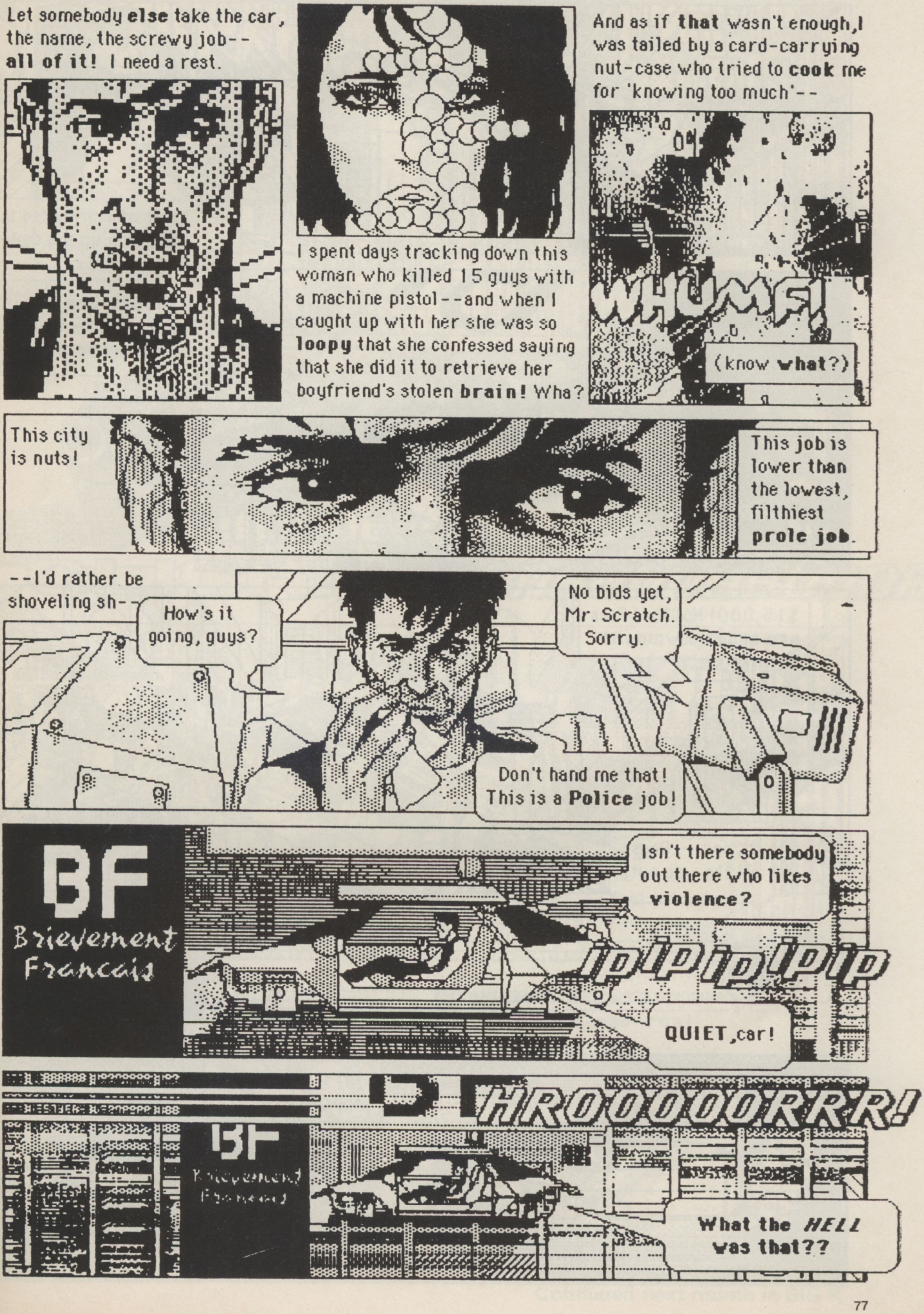
The Venue: BIG K, every month.

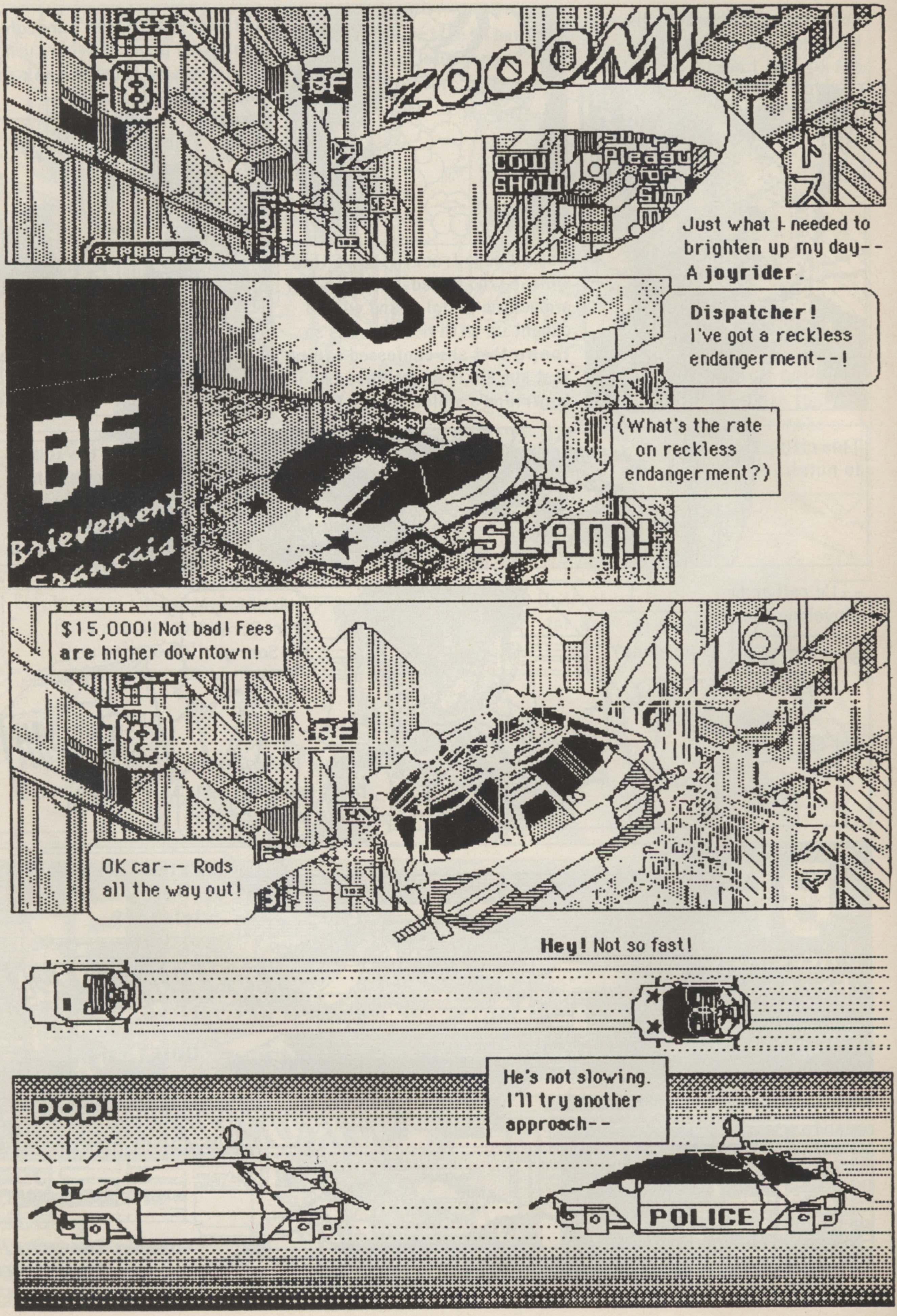
IT STARTS HERE!

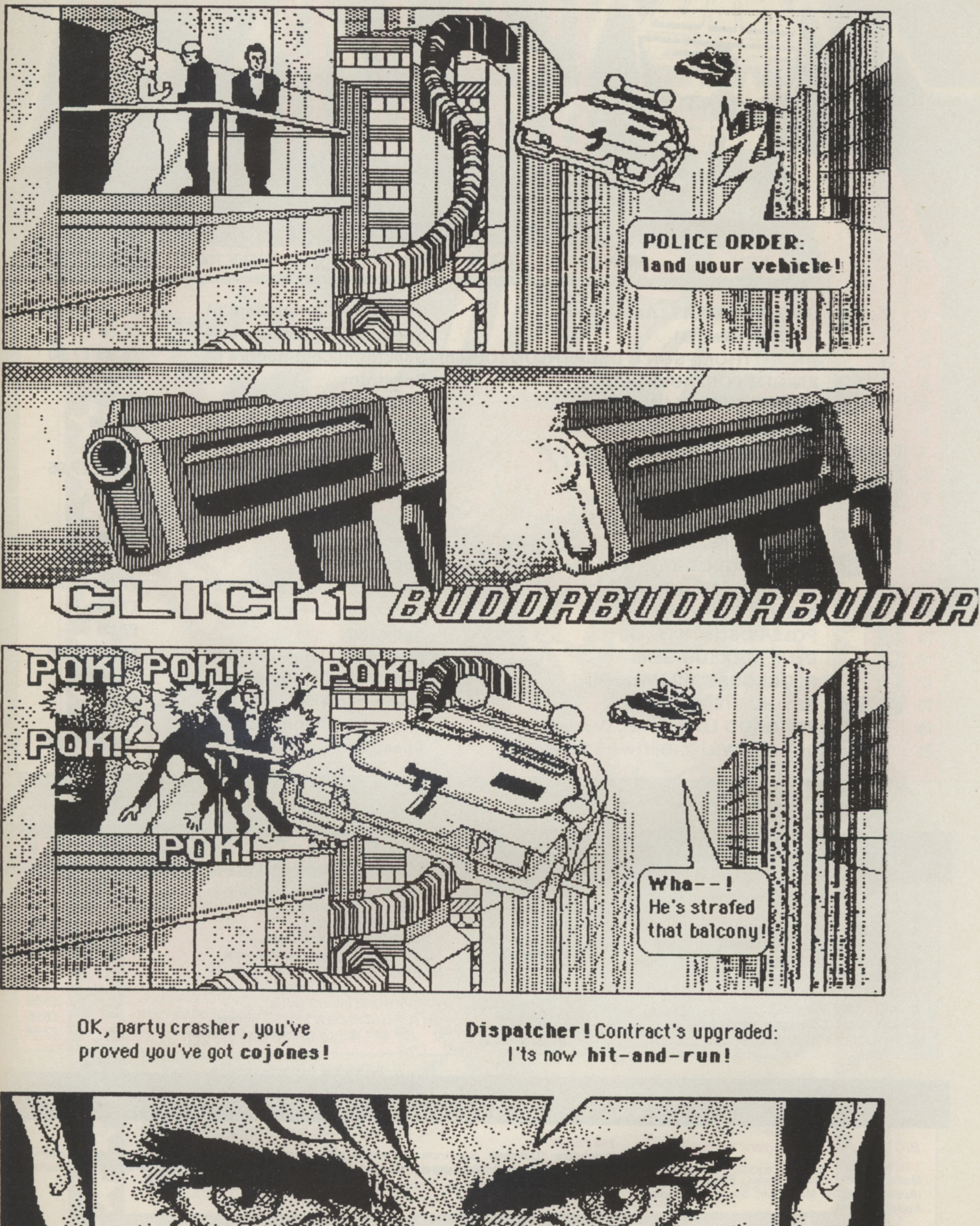
© First Comics, Inc.


Bon Apétite! Thank you for stopping at Briévement Francais.
Fun Factory
8
BF
RV
SEX
COW SHOW
Simple Pleasu for Simple Minds
トスマウ
Cabaret Voltaire
337
950
BF
The fast french franchise that couldn't make a **brioche** to save their **lives**.
Employment exchange: looking for a subcontractor. Occupation: Police.
Understood. Your job is up for bidding, Jack Scratch.
BF Brievement Francais
It was time to hang it up. Subcontract the car and open a little deli somewhere.
I had had **enough**.
SHATTER™

art:
Mike Saenz
story:
Peter B. Gillis
editor:
Mike Gold


Let somebody **else** take the car, the name, the screwy job-- **all of it!** I need a rest.
I spent days tracking down this woman who killed 15 guys with a machine pistol--and when I caught up with her she was so **loopy** that she confessed saying that she did it to retrieve her boyfriend's stolen **brain!** Wha?
And as if **that** wasn't enough, I was tailed by a card-carrying nut-case who tried to **cook** me for 'knowing too much'--
WHUMF!
(know **what**?)
This city is nuts!
This job is lower than the lowest, filthiest **prole job**.
--I'd rather be shoveling sh--
How's it going, guys?
No bids yet, Mr. Scratch. Sorry.
Don't hand me that! This is a **Police** job!
BF
Brievement Francais
Isn't there somebody out there who likes **violence?**
ip ip ip ip ip
QUIET, car!
HROOOOOORRR!
BF
What the *HELL* was that??


Sex
8
BF
ZOOOM!
COW SHOW
Pleasu for Sim
Just what I needed to brighten up my day-- A **joyrider**.
Dispatcher! I've got a reckless endangerment--!
BF
Brievement francais
(What's the rate on reckless endangerment?)
SLAM!
$15,000! Not bad! Fees **are** higher downtown!
OK car-- Rods all the way out!
Hey! Not so fast!
He's not slowing. I'll try another approach--
POP!
POLICE


POLICE ORDER: land your vehicle!
CLICK!
BUDDABUDDABUDDA
POK! POK! POK!
POK!
POK!
Wha--! He's strafed that balcony!
OK, party crasher, you've proved you've got cojónes!
Dispatcher! Contract's upgraded: I'ts now hit-and-run!

Continued next month in BIG K

CHARTS

GAMES TOP 20

KEY **N** = NEW ENTRY **R** = RE-ENTRY **K** = BIG K RAVE

THIS MONTH	LAST MONTH				
1	2	K	GHOSTBUSTERS (Activision)	Spectrum/ Commodore 64	£9.99/ £10.99
2	1		BOOTY (Firebird)	Spectrum/ Commodore 64	£2,50
3	4		DALEY THOMPSON'S DECATHLON (Ocean)	Spectrum/ Commodore 64	£6.90/ £7.90
4	3	K	KNIGHT LORE (Ultimate)	Spectrum	£9.95
5	5	K	UNDERWURLDE (Ultimate)	Spectrum	£9,95
6	19		SELECT 1 (Computer Records)	Spectrum/ Commodore 64	£12.49
7	N	K	SKOOLDAZE (Microsphere)	Spectrum	£5.95
8	N		HUNCHBACK II (Ocean)	Spectrum/ Commodore 64	£6.90/ £7.95
9	N		MATCH DAY (Ocean)	Spectrum	£7.95
10	14		RAID OVER MOSCOW (US Gold)	Commodore 64	£9.95
11	N		AIRWOLF (Elite)	Spectrum	£6.95
12	9	K	DOOMDARK'S REVENGE (Beyond)	Spectrum	£9.95
13	12		BEACH HEAD (US Gold)	Spectrum/ Commodore 64	£7.95/ £9.95
14	20		MATCH POINT (Psion)	Spectrum/ Commodore 64	£7.95
15	N		POLE POSITION (Atari)	Spectrum	£7.99
16	N		BLUE MAX (US Gold)	Spectrum/ Commodore 64	£7.95/ £9.95
17	N		BLOCKBUSTERS (Macsen)	Spectrum/ Commodore	£7.95
18	N	K	SPY HUNTER(US Gold)	Commodore 64	£9.95
19	8		TORNADO LOW LEVEL (Vortex)	Spectrum/ Commodore 64	£5.95
20	16	K	JET SET WILLY (Software Projects)	Spectrum/ Commodore 64	£5.95/ £7.95

SPECTRUM TOP 10

1	GHOSTBUSTERS (Activision)	£9.99
2	BOOTY (Firebird)	£7.90
3	KNIGHT LORE (Ultimate)	£9.95
4	UNDERWURLDE (Ultimate)	£9.95
5	SKOOLDAZE (Microsphere)	£5.95
6	MATCH DAY (Ocean)	£7.95
7	DALEY THOMPSON'S DECATHLON (Ocean)	£7.90
8	AIRWOLF (Elite)	£6.95
9	SELECT 1 (Computer Records)	£12.49
10	HUNCHBACK II (Ocean)	£6.90

COMMODORE 64 TOP 10

1	GHOSTBUSTERS (Activision)	£10.99
2	DALEY THOMPSON'S DECATHLON (Ocean)	£7.90
3	BOOTY (Firebird)	£2.50
4	HUNCHBACK II (Ocean)	£7.95
5	SELECT 1 (Computer Records)	£12.49
6	RAID OVER MOSCOW (US Gold)	£9.95
7	MATCH POINT (Psion)	£7.95
8	SPYHUNTER (US Gold)	£9.95
9	TORNADO LOW LEVEL (Vortex)	£5.95
10	JET SET WILLY (Software Projects)	£7.95

THE BIG K PLAYLIST

BIG K's reviewers current favourites.

TONY TYLER
Music System (Island Logic) BBC; MacPaint (Applesoft) Apple Macintosh; Suspect (Infocom) Apple Macintosh

RICHARD BURTON
CadCan Warrior (Taskset) Commodore 64; The Hitchhikers Guide To The Galaxy (Infocom) Apple Macintosh; Ghostbusters (Activision) Commodore 64

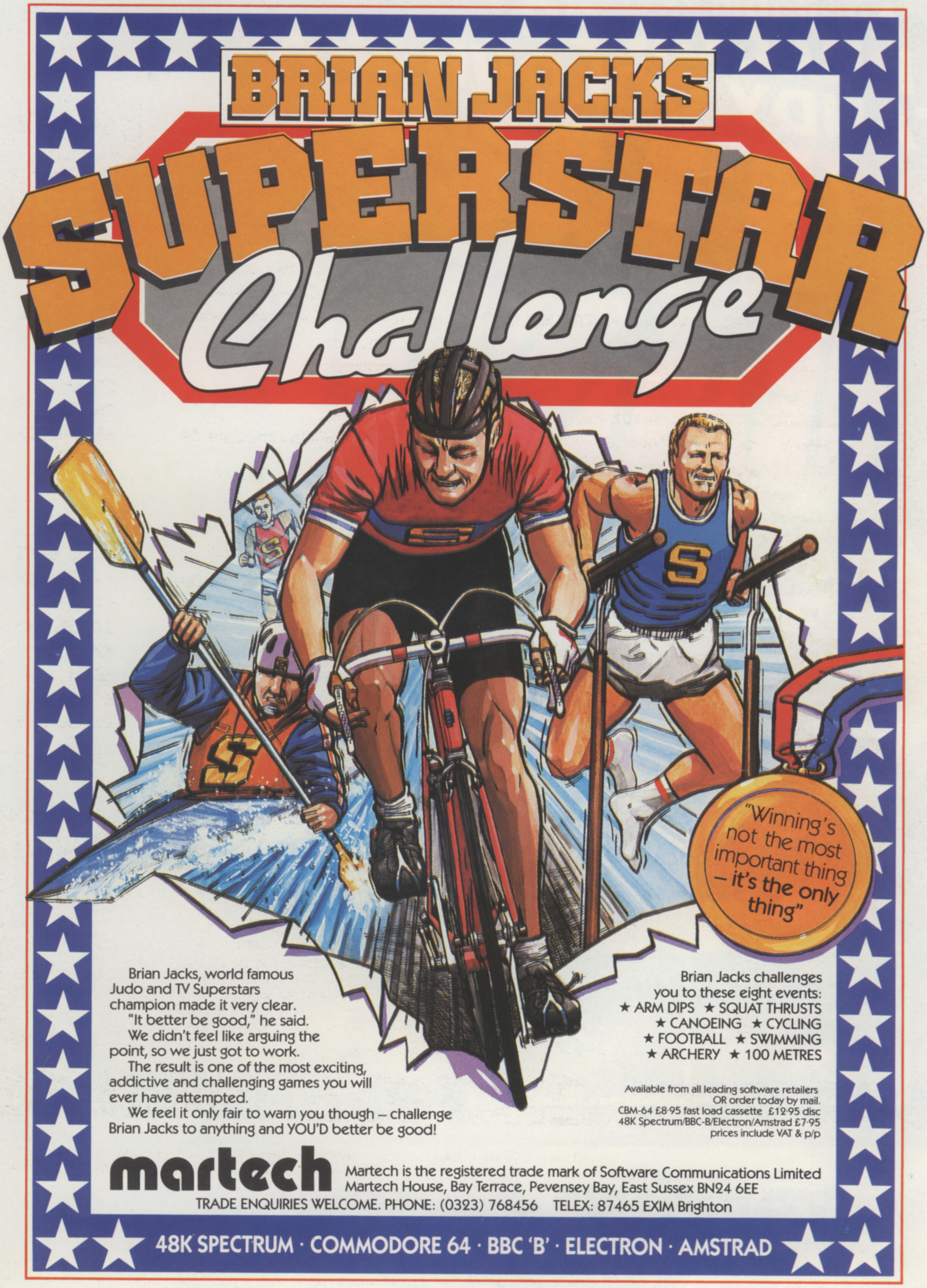
FIN FAHEY
Knightlore (Ultimate) Spectrum; Doomdark's Revenge (Beyond) Spectrum; Skooldaze (Microsphere) Spectrum

STEVE KEATON
Mission X (Mattel Electronics) Intellivision; Spitfire Ace (Microprose) Atari 800XL; Spider Man (Adventure International) Spectrum

NICKY XIKLUNA
MacWrite (Applesoft) Apple Macintosh; MacPaint (Applesoft) Apple Macintosh; Knightlore (Ultimate).

BILL BENNETT
Scrabble (Psion) Spectrum; Ghostbusters (Activision) Commodore 64; Ancipital (Llamasoft) Commodore 64

JOHN CONQUEST
River Raid (Activision) Atari 800XL; Suspect (Infocom) Apple Macintosh; Skooldaze (Microsphere) Spectrum


BRIAN JACKS
SUPERSTAR
Challenge
"Winning's not the most important thing – it's the only thing"

Brian Jacks, world famous Judo and TV Superstars champion made it very clear.

"It better be good," he said.

We didn't feel like arguing the point, so we just got to work.

The result is one of the most exciting, addictive and challenging games you will ever have attempted.

We feel it only fair to warn you though – challenge Brian Jacks to anything and YOU'D better be good!

Brian Jacks challenges you to these eight events:
★ ARM DIPS ★ SQUAT THRUSTS
★ CANOEING ★ CYCLING
★ FOOTBALL ★ SWIMMING
★ ARCHERY ★ 100 METRES

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48K SPECTRUM · COMMODORE 64 · BBC 'B' · ELECTRON · AMSTRAD

TIME
BANDIT
0
SCORE
73
TIME
400
TREASURE
TIME
BANDIT
400
SCORE
67
TIME
TREASURE

Available for
DRAGON 32
TANDY COLOUR 32 K

TIME BANDIT

Tired of games that have only a few screens or force you to follow strict levels? Well despair no more!! In Time Bandit, you virtually create your own game! You can choose from "twenty" places throughout the game, with more than "fifteen" distinct variations and levels of difficulty in each place; this means over 300 different variations!!

You must use the "Time-Gates" to travel to each of the 3 different Worlds of Time, each containing a multitude of colourful and unique adventuring areas. Visit the medieval Dungeons of Fantasy World, recapture the days of yesteryear in Western World, and reach for the Stars in Future World. Do battle with the Evil Guardians, Looking Lurkers, Angry Almo, and the Killer Smurphs!! Find the keys and escape with the treasures of time.

Crisp Graphics, Full Colour Animation, Great Sound, 300 Screens and 100% machine code; its all Here!!!

Requires 1 Joystick

Tandy colour version requires 32K non-extended basic and is available only at Tandy Stores.

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Credit Card Sales
Phone 0726 73456

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John Menzies Stores and Boots

Tired of games that have only
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Animation, Great Sound,
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stick

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BIG K MAGAZINE

MARCH 1985

No. 12 MARCH

BIG K

NOW INCORPORATING
TV GAMER

EXCLUSIVE

Starting this Month:
SHATTER!
The World's FIRST Computerised Comic

Saved by Bell--!
blam!
blam!
blam!

EXCLUSIVE

SOFTV
SUPER
The BIG K